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EC R&D

A Guide to
European Community
Research & Development
Programmes

February 1994 Update

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European collaboration in pre-competitive industrial research is an important factor in enabling UK companies to forge the links needed to exploit the opportunities offered by the Single European market. In addition, many European companies now look to collaborative projects as a means to pool resources, avoid duplication of effort and work towards common standards, thus enabling them to compete with Japanese and American companies in the world markets.

European Community R&D programmes help to facilitate such collaboration and are formulated and managed by the European Commission in Brussels, working in consultation with national governments. The Department of Trade and Industry is committed to the concept of European industrial collaboration and undertakes a wide variety of activities aimed at informing and assisting potential UK participants in the programmes concerned.

This information pack has been produced by the Department of Trade and Industry as a guide to the European Community's research and development activities. It provides an introduction to those programmes which support collaborative industrial projects carried out by industry, research organisations and academia. It also contains general information on Community R&D activities and Community schemes supporting innovation and technology transfer. For those requiring more detailed information on specific programmes or other assistance, the enclosed information sheets include details of contacts in both the Commission and the UK.

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GENERAL INFORMATION

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GENERAL INFORMATION

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INTRODUCTION TO EUROPEAN COMMUNITY RESEARCH AND DEVELOPMENT (EC R&D)

Introduction

There is a lot to be gained from participating in ECR&D, in terms of funding available (the budget for research and technological development within the Community for the period 1994-1998 is likely to be around 12 billion ECU, £9 billion), and in terms of the benefits of working with a European partner.

Participation in ECR&D makes an important contribution to improving the competitiveness of UK (and European) industry and therefore making it more successful.

The scope of EC R&D

International collaborative projects are selected for funding on the grounds that they offer significant advantages through implementation at a European level rather than by Member States acting on their own. EC R&D therefore complements rather than replaces national research efforts. A key condition of participating in EC R&D is that participants collaborate with at least one partner from another EC country.

The EC supports R&D which is at a pre-competitive stage, not involving near-to-the-market developments, but still with excellent potential for eventual exploitation.

EC R&D is focused in what is called a Framework Programme. The Framework is divided into specific programmes, each covering a different area of science and technology.

Who can take Part ?

All persons and organisations in member states of the European Community are eligible, which includes industry, academic institutions and research organisations. The European Economic Area (EEA) Agreement came into force on 1 January 1994 and most EFTA countries (Austria, Finland, Iceland, Norway and Sweden) signed up to this, although Switzerland and Liechtenstein did not. EFTA signatories to the EEA Agreement are entitled to full participation in, and access to, the current R&D Framework Programme and this is likely to be the case for future programmes. The other EFTA states have also been entitled to participate in individual programmes and projects but they must cover all the costs of their participation and they only have observer status at some management meetings.

What can the European Commission contribute?

The predominant form of EC research support is shared cost research, where the EC provides up to 50% of all research costs and participating organisations provide the balance. In some cases, non-commercial participants such as Higher Education Institutions (HEIs) can receive up to 100% of the marginal costs they incur for a project.

A second approach to EC R&D funding is the use of the Community's own research organisation, the Joint Research Centre (JRC) which comprises four separate laboratories.

Thirdly, there is concerted action. This has a similar collaborative format to much of the shared cost action except that the Community's funds are used primarily to provide a central co-ordinating secretariat. The actual R&D costs are covered by other participants or, if appropriate, by their national government. By far the most widespread and best known of the Community concerted action activities has been the COST programme in which non-Community countries may participate with the EC member States on an equal basis.

What is available at present?

The third Framework Programme (1990-94) was agreed at the December 1989 Research Council (the EC council of member states' research ministers) in Brussels and formally adopted in April 1990. This involved funding of ECU 5.7 billion. In December 1992 the Research Council agreed a "top-up" to the original funding of ECU 900 million. In line with earlier Framework Programmes this is not just a schedule for future research, but a five year strategy which lays down objectives, devises priorities and fixes the overall level of funding deemed necessary to undertake the specific R&D programmes by which it is to be implemented.

Specific Programmes in the third Framework Programme	**Funding MECU**
I Enabling Technologies	
1 Information and communications technologies	
Information technologies	1532
Communications technologies	554
Development of telematics	431
2 Industrial and materials technologies	
Industrial and materials technologies	847
Measurement and testing	159
II Management of Natural Resources	
3 Environment	
Environment	469
Marine Sciences and technologies	118
4 Life Sciences and technologies	
Biotechnology	186
Agricultural and agro-industrial research	377
Biomedical and health research	151
Life Sciences and technologies for developing countries	126
5 Energy	
Non-nuclear energies	267
Nuclear fission safety	228
Controlled nuclear fusion	568
III Management of Intellectual Resources	
6 Human capital and mobility	
Human capital and mobility	587
TOTAL	**6600**

Most of the funding available under the third Framework Programme is already allocated. The third Framework Programme for R&D funding comes to an end in December 1994 and the Commission has already formulated a proposal for the fourth Framework Programme for (end) 1994 to 1988. The Commission has proposed a total budget for research and technological development of 13.1

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billion ECU over the five year period. This compares with the eventual allocation of 6.6 billion ECU for the third Framework.

What will be available for the future?

A formal Decision on the forthcoming Framework will be taken during 1994 by the EC Council of Ministers and the European Parliament, followed by the formulation of programmes on the individual subject areas by the end of 1994. Although this means that the first R&D projects under the fourth Framework are unlikely to be underway until the beginning of 1995 participants will find the intervening time necessary for gathering information and developing proposals.

The areas covered by the Fourth Framework will be:

1. Research, technological development and demonstration.

2. Cooperation with third countries and international organisations

3. Dissemination and optimisation of results

4. Stimulation of the training and mobility of researchers

The first activity (research, technological developments and demonstration) will take up the bulk of the funding and will cover the following areas:

A. Information and Communications Technologies

- Telematics
- Communications Technologies
- Information Technologies

B. Industrial Technologies

- Design, Engineering, Production Systems and Human Management
- Materials
- Technologies for Transport Means
- Standards, Measurement and Testing

C. Environment

- Natural Environment, Environmental Quality, Global Change
- Environmental Protection Technologies
- Marine Sciences and Technologies

D. Life Sciences and Technologies

- Biotechnology
- Biomedical and Health
- Agriculture and Fisheries (including agro-industries, food technologies, forestry, aquaculture and rural development)

E. Energy

- Non-nuclear
- Nuclear fission safety
- Nuclear fusion

F. Transport

G. Targeted socio economic research

What are the benefits of collaboration?

Many UK companies have found that the benefits of participation in EC R&D extend far beyond the financial value of the 50% contribution towards research costs. Some of these other benefits are:

- Collaborative projects give access to a large source of R&D input from other organisations, as well as participants' own resources.

- Involvement with other organisations in Europe exposes participants to fresh ideas and methods.

- The risk of a project is spread over a number of partners, allowing participation in much larger projects than would otherwise be the case.

- The lead time for developing new products can be significantly shortened, giving participants a competitive advantage over other companies.

- The organisational and communication capabilities of participants' staff may be strengthened from the experience of collaborating and working in partnership with other European organisations.

Be Aware that...

The experience from the third Framework Programme is that individual programmes are oversubscribed. This however should not put off applicants from submitting a good proposal. What it does mean is that applicants need to do a lot of advance preparations before presenting their proposal.

Being part of an international collaborative venture creates additional overheads which should be taken into account by potential participants:

i) preparing a proposal involves a substantial investment of time and money. These costs must be met by the proposer. (Bear in mind though, that there are a number of organisations which can help with finding a partner - see sheet EC R&D 3)

ii) Once the work has begun it often proves expensive to co-ordinate the work of widely spread research teams.

SMEs may have particular difficulties as they may not have large resources to devote to their participation. Small firms may therefore find it useful to pool resources before seeking other European partners, either by joining up with a large UK firm which has the necessary resources or through a consortium of small firms, possibly involving a Research Association or laboratory able to provide a point of focus and specialist help.

FINDING A PARTNER

Perhaps one of the more daunting aspects of getting involved in EC R&D for potential participants is finding suitable European partners. The good news is that there are a significant number of sources of help for companies wanting to find suitable partners.

1) The Four UK VALUE Relay Centres

(See sheet EC R&D 25)

They can provide assistance in finding partners which includes accessing the EC CORDIS computer database RTD partners.

2) The UK Programme Managers

For each EC R&D programme, there is a UK Programme Manager in the appropriate Government Department. They can make suggestions based on their experience of consortia involving UK companies.
(see sheet EC R&D 29)

3) Euro-Info Centres

There are 22 Euro-Info Centres throughout the UK to advise on all aspects of help available from the EC. They are run by the European Commission. They are the contact point for the four partner search schemes listed below. The telephone number of the London Euro-Info Centre is 071 261 1163.

The telephone numbers of the other Euro-Info Centres are:

Belfast - 0232 49 10 31
Birmingham - 021 454 546171
Bradford - 0274 754262
Brighton - 0273 220870
Bristol - 0272 737373
Cardiff - 0222 229525
Exeter - 0392 214085
Glagow - 0412 210999
Inverness - 0463 234121
Leeds - 0532 439222
Leicester - 0533 554464
Maidstone Kent - 0622 694109
Manchester - 061 236 1992
Liverpool - 051 298 1928
Newcastle upon Tyne - 0912 610026
Norwich - 0603 625977
Nottingham - 0602 624624
Slough, Berks - 0753 577877
Southampton - 0703 832866
Stafford - 0785 59528
Telford, Shropshire - 0952 588766

i) BC-NET

BC-NET operates a computerised network of 600 business advisers who try to find a suitable partner for interested companies. The names of these companies are not revealed to prospective partners. Names of business advisors can be obtained from Euro Info Centres.

ii) BUSINESS COOPERATION CENTRE

This is very similar in scope to BC-NET but is not confidential. To use the system companies must send an application form called a cooperation profile (available from some Euro-Info Centres) to DG XXIII in Brussels.

iii) INTERPRISE

This is the Initiative to Encourage Partnerships between Industries and Services in Europe. The initiative's aim is to promote local or regional meetings between European industries and services.

This normally involves representatives from at least three regions of three EC countries meeting together to arrange contacts between entrepreneurs, meetings, fairs and conferences, partner-search programmes etc. A company interested in being involved in an Interprise meeting should contact their local Euro-Info Centre.

IV) EUROPARTENARIAT

Europartenariats are partner search fairs set up by DG XXIII of the Commission and they are a major meeting point for companies looking for other European partners. They are organised at least twice a year in different regions. Information on forthcoming Europartenariat events can be obtained from Euro-Info Centres.

4) UKRHEEO office in Brussels

The UK Research and Higher Education European Office (UKRHEEO), based in Brussels and funded by the Research Councils and the British Council, provides a range of services to UK higher education institutions including a 3 weekly bulletin, regular E-mail and telephone enquiry service.

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APPLYING FOR PROJECT FUNDING

An R&D project for EC support goes through five phases:

phase 1. Preparation and Submission. The phase when project ideas are developed, the consortium formed, the work planned and the proposal document written;

phase 2. Independent Assessment. The Commission arranges for all proposals to be assessed by panels of experts;

phase 3. Contract Negotiation. Once a proposal has been selected for funding, the consortium then enters into contract negotiations with the Commission;

phase 4. Project Execution. The Phase when research is undertaken. During this phase the Commission undertakes monitoring activities to ensure satisfactory performance;

phase 5. Industrial Exploitation. This is the ultimate longer term objective of Community R&D programmes.

Preparation and Submission

The Commission's collaborative research and development programmes are implemented through shared cost projects. These projects are normally industry led and are formulated in response to a Call for Proposals.

Full details of the technical areas and priority themes identified by the Commission are contained in an information package along with guidance on how to prepare and deliver the proposal by the due date to the Commission in Brussels. It is important to have the correct Information Package as these are updated for each new Call for Proposals.

Liaise closely with the Commission and UK Government Programme Managers at the earliest opportunity. It can take several months to prepare a proposal. Avoid eleventh hour decisions. In preparing your proposal you should note the following points, although they are by no means exhaustive:

- The contents of the Information Package should be studied carefully as it is an important guide to what the Commission is looking for. Innovative projects consistent with the technical areas and priority themes identified will have the best chance of success;
- Background research is required to ensure that similar ideas are not being addressed in existing projects;
- Identify complementary projects which might provide useful results;
- Normally once a year the Commission organises a Proposer's Forum in Brussels. This event provides prospective participants with an opportunity to meet the Commission staff who run the programme. It also provides an opportunity to make contact with potential project partners;
- The Commission and UK Government staff can provide useful guidance on how to prepare a successful proposal;
- Once a consortium has been assembled each partner should prepare a short document describing the work they want to do. The consortium should also agree at this point which partner will lead the project as the prime proposer;
- One person from the prime proposer should write the draft proposal documents and act as project champion and driver. A consortium meeting should be held to discuss the details of the draft;
- If time allows, a copy of the draft proposal should be shown to the Commission staff for comment. An independent consultant may also be considered worthwhile.

Independent Assessment

The Commission will arrange for proposals to be assessed by a team of independent external evaluators. The evaluators are experts drawn from industry, universities and research institutes. These individuals are appointed on the basis of their expertise and not as representatives of their organisation or country. Commercial confidentiality of the proposals is ensured.

The assessment has two main objectives:

- to carry out a thorough assessment of the proposal and to make a recommendation on its merits and on the action that should be taken;
- to select projects so that all the Technical Areas are covered and to make the best use of funds.

A project proposal is usually submitted in three physically separate parts. Part I contains administrative and financial data. Part II contains the technical details of the proposal, along with the proposed work plan and sections addressing expected industrial benefits, project management techniques, etc. Part III gives partnership details and details of intentions and plans concerning the commercial exploitation of the results of the project.

The assessment of the proposal is carried out in four stages.

First the Commission's staff verify the eligibility of the proposal using Part I (Administrative and Financial Data). This part of the proposal is not seen by the independent experts. Assessment of Part I is based upon eligibility criteria for participation in the Programme.

Secondly Part II (Technical and Management Details) is assessed by the independent experts. To ensure an unbiased assessment this part must not identify any of the proposers by name. Each proposal will be assessed by at least three experts working independently. Part II is evaluated against criteria such as conformity with the Programme Technical Areas and Priority Themes, scientific merit and technical innovation, and the economic importance to the Community.

Only when the experts have assessed Part II will they have access to Part III (Partnership Details). Assessment of Part III is based on criteria concerned with the roles and experience of partners, and the exploitation of results.

The criteria used in the assessment of each part of the proposal are listed and explained in the Information Package.

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At the third stage of the assessment the overall merit of individual projects is discussed by the expert group. Projects are then given one of the following ratings:

A strongly recommended for funding without modification to the proposed project;

B strongly recommended for funding with modifications to the proposed project;

C recommended for funding without modification to the proposed project;

D proposed project not recommended for funding because major changes are necessary;

E proposal of low quality or not relevant to the programme.

The fourth stage of the assessment procedure is the final selection of projects based on the recommendations made by the external independent assessors and the programme budget available.

The assessment phase is the only part of the project life cycle when the consortium has no direct part to play. The only way that the consortium can influence the assessment and selection is by having innovative ideas and writing a good proposal. In practice the most important parts of the proposal are the first few pages of Part II (ie the Summary, Objectives and the Economic and Technical Benefits). If these three sections are poorly written and do not give a favourable initial impression, then it is unlikely that the project will be rated very highly. This does not mean that the quality of the ideas and the remainder of the proposal are unimportant. What is important is to create a good first impression and to 'sell' the ideas to the assessors.

Success in the assessment and selection phase can only be secured through the quality of the proposal.

This requires:

- innovative ideas;
- conformance with the Priority Themes in the current Information Package;
- realistic objectives;
- quantification of technical goals;
- sound management methods;
- the right consortium for the project;
- consistency with partners' overall strategies;
- potential benefit to the Community from industrial exploitation of results;
- clear and precise presentation.

Contract Negotiation

The partners in a successful proposal will receive a letter inviting them to the Commission to negotiate a contract. The negotiations on all aspects of the project may take some months, depending on the difficulties encountered. Work on the project cannot commence until this contract has been signed by all the parties involved.

Contract negotiations centre around reaching agreement on responsibilities of the partners, ownership, exploitation and dissemination of results, monitoring and reporting on the project, financial considerations, etc. The Commission may also ask for some changes to the project based upon the recommendations of the assessors, and these also need to be negotiated with the Commission. The contract that is agreed with the proposers of a selected project will be based on a standard form of contract which includes a technical annex based on the proposal document and standard conditions.

You should note that:

- if contract negotiations do not lead to agreement on contract terms and conditions, your project will not be funded;
- the expenses incurred in negotiating a contract have to be met by the consortium and cannot be recovered from the Programme.

Project Execution

Once the contract has been signed the project enters the start-up stage. This is a crucial time for the project. It is at this stage that the partners may appreciate for the first time the complexities of working on an international project.

The start-up stage is a time for learning about your partners' working methods and understanding more about their motivation and goals. It is a time for getting to know people and developing one to one working relationships.

It is also a period when partners realise that a considerable amount of time has to be devoted to travelling and participating in project meetings.

There is always the temptation to minimise the number of these meetings. This is not recommended. Not only may you fail to reap the full benefits from the project, but you will also possibly end up with a less well integrated research effort. The time devoted to direct dialogue with partners is usually well worth the effort, although in the early stages it may seem that the time could be better invested in doing 'research'.

Project management is also a time-consuming activity, but one that is essential to the success of the project. The time that has to be spent on this activity should not be under-estimated. An international project is much more difficult to deal with than a national one or an internal project. It is more demanding in terms of time and diplomatic skills, and involves more paper work. There will be the usual internal reviews and liaison with partners. Reports also have to be prepared for the Commission.

The arrangements for monitoring of the project by the Commission will be specified in the contract. This may include visits to the partners' premises, in addition to regular progress meetings in Brussels. Regular written progress reports are required. A brief report is normally required every six months, and a full report every twelve months. A final report has to be prepared at the end of the project. Cost statements also have to be submitted every twelve months. The Commission also requires non-confidential summary reports on an annual basis for the purposes of disseminating research results more widely.

Industrial Exploitation

The Commission will expect your consortium to pursue the development of the project, after its formal completion, through to the stage of industrial exploitation. Intentions with respect to exploitation are included in Part III of the proposal. The conditions applying to ownership, exploitation and dissemination of project results will be described in the contract.

The industrial property generated under the contract is owned by the partners, and they are responsible for reaching agreement among themselves on its use. A partner must grant licences, usually free of royalties, to other partners where this is necessary for the effective development of the project and for subsequent exploitation of the results.

Exploitation of the results must commence within a reasonable period of time. This can be agreed with the Commission at the stage when the final report is being drafted. Although the confidentiality of all commercially sensitive information is guaranteed, the partners in the project must allow the results of the research to be disseminated by the Commission.

Summary

When writing the project proposal make sure that you:

- allocate adequate resources for travel and project management;
- design your work plan to include collaborative tasks in the early stages of the project that will contribute to consortium building.

In the start-up stage of the project you should:

- hold regular meetings and workshops with your partners;
- ensure that you improve your understanding of your 'partners' working methods and objectives.

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EC R&D -
WHO DOES WHAT?

Information and Advice on EC R&D Programmes

Information on the various EC R&D programmes is available from the Commission itself in Brussels and from its offices in the UK, the address of which are shown below.

Headquarters:

Commission of the European Communities
Rue de la Loi 200
B-1049 BRUSSELS
Tel: 010-322-295 1111

UK Offices:

8 Storey`s Gate
LONDON SW1P 3AT
Tel: 071-973 1992

4 Cathedral Road
CARDIFF CF1 8SG
Tel: 0222-371631

7 Alva Street
EDINBURGH EH2 4PH
Tel: 031-225 2058

Windor House
9-15 Bedford Street
BELFAST BT2 7EG
Tel: 0232-240708

In addition, various publications are produced by the Commission which disseminate information on a wide scale; notably the monthly Official Journal which contains useful information and calls for proposals etc.

The Department of Trade and Industry (DTI) plays a major role in the UK of providing advice and information to UK industry and research establishments about the industrial programmes (now over 50% of the total) and in disseminating information arising from the running of these programmes. The DTI is divided into divisions, each with responsibility for specific areas of work, and many of these divisions have a major interest in EC R&D in general, or in particular EC R&D programmes relating to their own area of concern.

Technology and Innovation Policy Division (TI)

TI Division is the DTI`s central co-ordinating division on S&T matters. It has an EC R&D section which contributes towards the formulation of UK policy, provides advice and assistance where necessary and liaises with other divisions on all industrial EC R&D issues. TI Division therefore provides a good starting point for general enquiries.

Contact point for EC R&D General Enquiries

Tony Cash
Technology and Innovation Policy Division
3.37 Yellow Zone
151 Buckingham Palace Road
LONDON
SW1W 9SS
Tel: 071-215 1611

Regional Offices

The DTI has regional offices throughout the UK which help to promote enterprise and improve industrial awareness and competitiveness in their local area. Many industrial firms in the UK have regular contact with their regional offices on DTI activities and the office will be able to provide similar advice on EC programmes; suggesting particular R&D programmes which might be of interest and putting other firms or interested parties in touch with the relevant contact point within DTI. Regional Office addresses are listed below.

Dr E Wrigley
DTI North East
Stanegate House
2 Groat Market
Newcastle upon Tyne
NE1 1YN
Tel: 091 232 4722

Mr R Landeryou
DTI South East
Bridge Place
Eccleston Square
London
SW1V 1PT
Tel: 071 215 0560

Mrs E Madders
DTI North West
Room 1920
Sunley Tower
Piccadilly Plaza
Manchester
M1 4BA
Tel: 061 838 5315

Mr R Mooney
DTI East
Building A
Westbrook Research Centre
Milton Road
Cambridge
CB4 1YG
Tel: 0223-461939

Mr M Doxey
DTI Yorkshire and Humberside
Room 102
25 Queen Street
Leeds
LS1 5LF
Tel: 0532 443171 (ext.217)

Mr C Marston
DTI East Midlands
Room 306
Sevens House
20 Middle Pavement
Nottingham
NG1 7DW
Tel: 0602 506181 (ext.353)

Mr R Fenley
DTI West Midlands
6th Floor
77 Paradise Circus
Queensway
Birmingham
B1 2DT
Tel: 021 212 5144

Mrs M Hildebrand
Scottish Office/Industry Department
Room 604
Alhambra House
45 Waterloo Street
Glasgow
G2 6AT
Tel: 041 248 2855 (ext.5549)

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Mr Harry Cherry
Department of Economic Development
Technology Division (IRTU)
Northern Ireland
Netherleigh
Massey Avenue
Belfast
BT4 2JP
Tel: 0232 529267

Mr I Dixon
Welsh Office/Industry Department
BSU Division
Cathays Park
Cardiff
CF1 3NQ
Tel: 0222 825111 (ext.3678)

Mr C Buckel
DTI South West
Room 537
The Pithay
Bristol
BS1 2PB
Tel: 0272 272666 (ext.435)

Other Divisions

As outlined above, various DTI divisions have a specific interest in particular EC R&D programmes and take the lead with regard to UK involvement. Details of these programmes and DTI contact points can be found in the Programme Information Sheets opposite.

Other Government Departments

The Science and Technology Secretariat in the Cabinet Office acts as the central UK coordinating body for all the EC R&D programmes as they cover a wide range of interests which fall within the responsibility of a number of UK Government Departments. This is necessary to ensure that the UK takes an overall balanced and coordinated approach to EC R&D whilst maintaining effective links between EC and UK programmes.

Contact

Mr R Cannif
Cabinet Office
Room 421
70 Whitehall
London
SW1A 2AS
Tel: 071-271 2056

UK Relay Centre Enquiry Lines

A network of Relay Centres has been set up throughout the EC, to promote the Community's R&D programmes, to help organisations participate in these programmes and to ensure that the results arising from projects are disseminated and exploited. The Centres were set up in January 1993. There are four Relay Centres in the UK, each serving primarily one region of the UK.

Relay Centre for Wales

Anthony Armitage
Welsh Development Agency
QED Centre
Main Avenue
Treforest Industrial Estate
Pontypridd
CF37 5YR
Tel: (0443) 841345
Fax: (0443) 841393

Relay Centre for Northern Ireland

Kevin Dunwoody
LEDU- Small Business Agency
LEDU House
Upper Galway
Belfast
BT8 4TB
Tel: 0232 491031
Fax: 0232 691432

Relay Centre for Southern and Central England

Maureen Firlej
The Technology Broker
Station Road
Long Stanton
Cambridgeshire
CB4 5DU
Tel: 0954 261199
Fax: 0954 260291

Relay Centre for Scotland and Northern Ireland

Coordinating Partner
Ian Trail
EuroInfo Centre Ltd
Atrium Court
50 Waterloo Street
Glasgow
G2 6HQ
Tel: 041 221 0999
Fax: 041 221 6539

Relay Centre for Highlands and Islands of Scotland

Calum Davidson
Business Information Source Ltd
Bridge House
20 Bridge Street
Inverness
IV1 1QR
Tel: 0463 715 400
Fax: 0463 715 600

Relay Centre for Central, Southern and North East Scotland

Ottila Saxl
Technology Transfer Centre Limited
43 Falkland Street
Glasgow
G12 9QZ
Tel: 041 339 5010
Fax: 041 339 8787

Relay Centre for Northern England

Sarah Too-Chung
Regional Technology Centre North
Unit 3D
Hylton Park
Wessington Way
Sunderland SR5 3NR
Tel: 091 549 8299
Fax: 091 548 9313

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OTHER EUROPEAN INITIATIVES AND MECHANISMS

There are several European initiatives for technological collaboration other than those organised by the European Community. These have arisen from the recognition of the needs to spread development costs and risks and from a general desire to improve European capability and competitiveness in the field concerned. In addition, a number of other Community activities have recently emerged which to some extent augment the EC R&D programmes by utilising structural funds to promote initiatives which foster innovation and technological advance in the Community`s less favoured regions. A brief summary of the most relevant of these initiatives and mechanisms is given below; more detailed information is available from the contact points listed.

1.EUREKA

EUREKA is not a European Community Programme but a framework for industry-led projects aimed at producing high technology goods and services to compete in world markets against the US and Japan. These projects are normally downstream of, and complementary to, EC programmes.
There are 20 participating countries including the 12 EC Member States plus Austria, Iceland, Switzerland, Sweden, Norway, Turkey, Hungary and Finland. The EC Commission itself is also a EUREKA participant. Activities are carried out in a wide range of advanced technologies such as information technology, telecommunications, robotics, materials, advanced manufacturing, biotechnology, lasers and others.

Projects are proposed and run by firms and research institutes and bureaucracy is kept to a minimum with Governments providing an information matchmaking network and market openings. These allow project partners to seek political support for removal of relevant trade barriers. Public funding is at the discretion of national governments. Since its launch in 1985 EUREKA has embraced 13.5 BECU (£11.36bn) of agreed projects. The UK plays a large part in achieving its market-led orientation and UK industry is now involved in 221 out of the 816 projects; major examples being High Definition Television and the FAMOS project in flexible automated assembly. DTI is currently considering how best to promote increased involvement of UK organisations in EUREKA projects.

DTI Contact

EUREKA Office
Department of Trade and Industry
3rd Floor, Yellow Core
151 Buckingham Palace Road
LONDON
SW1W 9SS
Tel: 071 215 1618

2. COST

Co-operation on Science and Technology (COST) is a concerted action programme which has as participants the EC Member States and several other European countries. Administration of the programme is carried out by the European Commission but research costs are the responsibility of participating firms or their national Governments.

More details can be found on the COST information sheet (EC R&D27).

Contact

Edmund Bethall
COST Secretariat
Cabinet Office
Albany House
84-86 Petty France
LONDON
SWIH 9ST
Tel: 071 271 2113

3. European Space Agency

The European Space Agency (ESA) is not a Community Institution.
The ESA was inaugurated in 1975 and since then membership has grown to 13 countries, including most EC countries (other than Greece, Luxembourg and Portugal) plus Austria, Norway, Sweden and Switzerland. ESA was set up to promote "for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications". Involvement in ESA gives the UK the opportunity to take part in space projects that would otherwise be well beyond its own resources.

Involvement in programmes within the Agency falls into two categories: mandatory and optional. The Member States' contributions to the mandatory programmes are based on their national income and the UK share is currently 14.57%. The British National Space Centre (BNSC) represents the UK on the ESA Council and other delegate bodies.

Contact

British National Space Centre
Dean Bradley House
52 Horseferry Road
London
SW1P 2AG
Tel: 071-276-2688

4. The Council of Europe

The Council of Europe was founded in 1949 to achieve greater unity between its members and foster economic and social progress. It groups 25 European democracies including the UK. Scientific and technological activities are run by its Parliamentary Assembly, which now includes "special guest" delegations from 5 Central and East European countries. At present cooperation focuses on:

- renewable energy sources
- North-South technological transfers
- climate change
- bioethics

It is important to be aware that the main focus of the Council of Europe is on economic and social progress, and that its funding for scientific and technological activities is very small.

Contact

The Council of Europe
BP - 431- R6
67006
Strastbourg
REDEX
France
Tel: 010 33 88 614961

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5. European Regional Development Fund (ERDF)

Several technological programmes have been adopted in the period 1989 -1993 under the auspices of the ERDF, which aims to provide assistance for the Community's less favoured regions. These include STRIDE in declining industrial regions of Great Britain and Northern Ireland which aimed to strengthen the R&D capacity of the eligible areas. Also adopted were two programmes which applied, in the UK, in Northern Ireland only:-

(i) PRISMA - aimed at providing calibration and accreditation facilities for SMEs;

(ii) TELEMATIQUE - aimed at stimulating the supply and use of Advanced Telecommunications Service (ATS).

Decisions on the 1994 -1999 group of Community Initiatives have not yet been taken.

However, the normal Operational Programmes provide grants to public sector bodies under their R&D "Priority Action". New Programmes for the period 1994 - 1999 should be agreed with the Commission by the Summer of 1994.

If companies would like to benefit from specific grants from the EDRF then they should note that in most cases only specifically designated regions of the Community qualify, and those interested in participating would first need to check their eligibility and the types of activities receiving funding by contacting their local DTI office.

Contact

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ACRONYMS USED IN EC R&D

ACPM	Advisory Committee on Programme Management
AIM	Advanced Informatics for Medicine in Europe
BAP	Biotechnology Action Programme
BBSRC	Biotechnology and biological sciences Research Council
BCR	Bureau Communautaire de Reference (Community Bureau of Reference)
BECU	Billion ECU
BEP	Biomolecular Engineering Programme
BICEPS	Bioinformatics Collaborative European Programmes and Strategy (forerunner of AIM)
BMFT	(German Federal Ministry for Research and Technology)
BNSC	British National Space Centre
BRIDGE	Biotechnology Research for Innovation, Development and Growth in Europe
BRITE/ EURAM	Basic Research in Industrial Technologies for Europe/European Research in Advanced Materials
CADCAM	Computer Aided Design Computer Aided Manufacturing
CEC	Commission of the European Communities
CEN	Comite European de Normalisation (The European Committee for Standardisation)
CEPT	Confederation of European Posts and Telecommunications
CGC	Comite Consultatid de Gestion et Co-ordination (Management, Co-ordination and Advisory Committee)
CIT	Committee for Innovation and Technology Transfer
CODEST	Committee for Development of European Science and Technology
COMETT	Community Programme in Education and Training for Technology
COREPER	Council of Permanent Representatives (of EC Member States)
COST	European Co-operation on Science and Technology
CREST	Scientific and Technical Research Committee (of the EC)
CUBE	Concertation Unit for Biotechnology in Europe
DELTA	Developing European Learning through Technological Advance
DEm	Department of Employment
DEn	Department of Energy
DES	Department of Education and Science
DG	Directorate General (of the European Commission)
DoE	Department of the Environment
DRIVE	Dedicated Road Infrastructure for Vehicle Safety in Europe
DTI	Department of Trade and Industry
EC	European Community
ECLAIR	European Collaborative Linkage of Agriculture and Industry through Research
ECOSOC	Economic and Social Council
ECU	European Currency Unit
EEA	European Economic Area
EEC	European Economic Community
EFTA	European Free Trade Association
EJOB	European Joint Optical Distability (project)
EP	European Parliament
EPSERC	Engineering and Physical Sciences Research Council
ERDF	European Regional Development Fund
ESA	European Space Agency
ESC	Economic and Social Committee
ESF	i)European Science Foundation ii)European Social Fund
ESPRIT	European Strategic Programme for Research in Information Technology
ETW	European Transonic Windtunnel
EUREKA	European Research and Co-ordination Agency
EUROTRA	Community R&D Programme for a Machine Translation System of Advanced Design
EVCA	European Venture Capital Association
FAST	Forecasting and Assessment in Science and Technology
FLAIR	Food linked Agro-Industrial Research
FOC	Fibre Optic Cable
HDTV	High Definition Television
HEI	Higher Education Institution
HTM	High Temperature Materials Programme (at JRC Petten)
IBC	Integrated Broad-band Communications
IPR	Intellectual Property Rights
IRDAC	Industrial Research and Development Advisory Committee
ISDN	Integrated Services Digital Networks

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IT	Information Technology
JET	Joint European Torus
JRC	Joint Research Centre (of the EC)
MAFF	Ministry of Agriculture, Fisheries and Food
MAST	Marine Science and Technology
MECU	Million ECU
MEP	Member of the European Parliament
MoD	Ministry of Defence
MONITOR	A Community Programme in the field of strategic analysis, forecasting and evaluation in matters of research and technology
MRC	Medical Research Council
NERC	National Environment Research Council
NET	Next European Torus
OECD	Organisation for Economic Co-operation and Development
RACE	Research in Advanced Communications in Europe
RDP	RACE Definition Phase
RMP	RACE Main Phase
RTP	Research and Technology Policy Division (DTI)
SERC	Science and Engineering Research Council
SME	Small and Medium-sized Enterprise
SPRINT	Strategic Programme for Innovation and Technology Transfer in Europe
STAR	Development of certain regions of the EC by improving access to advanced Telecommunications services (under the ERDF)
STRIDE	Science and Technology Research into Innovative Developments in Europe
TIP	Technology Integration Project
UETP	University-Enterprise Training Partnerships (supported under COMETT)
UKAEA	United Kingdom Atomic Energy Authority
UNICE	Union of Industries of the European Community
VALOREN	Development of certain regions of the EC by exploiting indigenous energy potential (under the ERDF)
VALUE	Valorisation and Utilisation for Europe
VSLI	Very Large Scale Integration

Case Study (1) : DRIVE
Ian Catling Consultancy

The Company

Ian Catling Consultancy is a small 5 man operation with a clear European dimension. Established in 1983, ICC has earned an international reputation as a leader in route guidance and driver information systems. ICC plays a prominent role within European research initiatives at management, specialist adviser and participant levels.

ICC has been involved in 4 EC R&D projects as the prime contractor and therefore has a great deal of European experience to share.

The Programme

DRIVE (or Dedicated Road Infrastructure for Vehicle safety in Europe) aims to contribute to the development of integrated trans-European services using IT and Communications to improve the performance (safety and efficiency) of passenger and goods transport services and at the same time reduce the impact of transport on the environment.

For more details on the DRIVE programme see under Area 2 Transport Services (EC R&D13).

The Project

SOCRATES - System Of Cellular Radio for Traffic Efficiency and Safety. This project aims to use cellular radio in an efficient way to exchange detailed digital information on traffic conditions with vehicles as they travel. Broadcast data is linked to data stored in the vehicle's navigation computer, which combines these sources to calculate the best route for the driver. The computer then speaks to the driver and provides easy-to-follow guidance to reach the destination in the most trouble-free way.

Pilot projects to demonstrate the feasibility of SOCRATES are being implemented in Gothenburg, the region around Frankfurt and in London as part of another DRIVE 2 project called LLAMD (representing the linked field trials in London, Lyon, Amsterdam, Munich and Dublin). The "SOCRATES Kernel" project provides a centre of excellence and expertise in which SOCRATES problems can be discussed, and the technical and commercial developments in the three SOCRATES pilots are coordinated.

The projects have the involvement of some of the major European communication companies along with large European car manufacturers. The SOCRATES Kernel involves 14 separate companies, of which four are based in the UK, including such famous names as British Telecom, Philips, BOSCH, Volvo, SAAB, Daimler Benz, and the Ford Motor Company.

Ian Catling Consultancy are independent coordinators for the projects and ultimately the project managers.

Preparation and Submission of the project

ICC had already established many links in the field of Route Guidance Systems and indeed took part in the formation of the original DRIVE programme. This certainly benefitted the development of the original SOCRATES project alongside the emerging DRIVE Programme. Links with potential project participants were established and the concept created well before the call for proposals, to avoid a late minute rush which could ultimately reduce their chances of success.

In preparing a project proposal, ICC looked at the structure and objectives of what was proposed and allocated responsibilities for specific areas of the project to the various participants. This ensured a good cover for the different aspects of the proposal and reduced the burden on the prime proposer. With 14 participants SOCRATES is a substantial DRIVE project and naturally the management of such a large project takes on a new dimension. Having allocated responsibilities according to 20 Workpackages that were identified, certain participants formed small groups with one of them in the lead and ICC in overall charge.

Independent Assessment

ICC felt that it had been somewhat easier to negotiate a successful contract in DRIVE 1 than in its successor DRIVE 2 when the number of organisations applying led the Commission to offer reduced funding across the board.

Contract Negotiation

In both DRIVE 1 and 2 the call closed in September and the research was underway by the following January. Although the Commission had not formally signed the contract by then, it had given an undertaking to do so.

Project execution

In collaborating, the overheads have been reduced and the European funding has been a spur to collaboration. The collaboration has meant regular coordination meetings and then inevitably administrative costs in managing a multinational. Overall ICC rated the programme as very good and were pleased to be involved.

Exploitation

The project will lead to the setting of a European Standard. Pilots covering Europe are already taking place and these will ultimately lead to a comprehensive European system. Links are also being developed with the American "Intelligent Vehicle Highway System" programme.

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Case Study (2) : BRITE/EURAM British Cement Association

The Company

The British Cement Association represents the interests of the British Cement Industry, such large names as Blue Circle, Rugby and Castle. BCA has applied for and been successful in three European Community Research and Development Programmes. BCA is currently involved in a BRITE/EURAM project on the 'Residual Service Life of Concrete Structures'.

The Programme

The principal objective of the BRITE/EURAM programme is to contribute to the rejuvenation of European Manufacturing industry and a reduction in the environmental impact of the manufacturing of material goods. This is to be achieved through advancing the technologies required to address the whole life cycle of materials with the aim of reducing the design to product lead time and improving the manufacturing process.

The Project

A very high proportion (over 40% in the UK) of national construction expenditure is spent on repairs to and maintenance of mature structures. The project aims to develop a system which will enable the current state and future performance of a structure to be established quantitatively. Three deterioration mechanisms are being considered: corrosion of reinforcement, freeze-thaw damage and alkali-silica reaction. For each mechanism, methods will be developed to establish the aggressiveness of the environment, the current state of materials within the structure and the current rate of deterioration, and the influence of this on structural performance. This information will permit rational decisions to be made for a maintenance and repair strategy.

Preparation and Submission of the project

The project started in March 1992 and is expected to run until February 1995. The British Cement Association is collaborating with five other organisations who are world leaders in the field of construction materials. Having worked with many of the group before, most of the work required to establish a truly European collaboration had already been done before the Call for Proposals was issued. The BCA stressed the importance of preparing well for the project. They felt that many people were good at defining the problem but were less adept at system analysis and 'who's going to do what'. BCA broke down the project to a list of key activities and assigned people to be responsible for each. By using a matrix each partner could clearly see what they were responsible for and the payment structure and timescale to be followed.

Independent Assessment

BCA have found the Commission generally very good in processing the application, giving advice and making the payments. At all stages in the project the BCA have tried to keep the Commission involved from the first meeting of the prospective participants through to the half-way report stage.

Contract Negotiation

In addition to the formal contract from the Commission, BCA drew up a partners agreement to cover such issues as IPR and payments. This was particularly important as the collaborating group included three Swedish partners, who, as organisations from a non-Member State are not allowed to receive any direct financial benefit from participating in EC R&D and in fact have to cover all their own costs (supported by the Swedish Government). This can be an advantage to the collaborating group as it receives the benefit of additional expertise and facilities at no extra cost.

Project execution

BCA said that they felt the project to be of such importance that they would have tried to proceed even without the helpful European funding they have received. The European wide group they have brought together have contributed a great deal in new experimental techniques and expertise, not available in any one single organisation.

Exploitation

BCA found the time required for reporting on the research something of a drawback and felt that the existing exploitation routes for EC R&D were weak. In general terms, little is known about the output from EC projects. However, BCA are keen to ensure that the results of this project are developed into European Standards which are likely to have widespread benefits across Europe. This is especially significant at this time when the construction industry is undertaking little new building work.

The benefits for existing buildings and other structures such as bridges and roads will result in the best strategic decisions being taken about the future use of the structure, with or without remedial work.

Overall BCA said that collaboration, networking and joint ventures were the right way forward for this type of research which leads to a common European Standard and they were keen to take part again.

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Case Study (3) : ESPRIT
Brameur Ltd

The Company

Brameur Ltd is a research consultancy primarily involved in software management with 20 full time and 35 part time staff. Brameur was the Main Contractor for an ESPRIT project to develop the Visual Arts Systems for Archiving and Retrieval of Images (VASARI) which is helping the European IT Industry to achieve a dominating position in the artistic image processing market.

Braumeur was in partnership with the National Gallery (UK), Birbeck College, University of London (UK), The Doerner Institute (Germany), The Laboratoire de Recherche des Musees de France Paris, Telecom Paris, Thomson CSF (France), TUEV-Bayern (Germany), Syseca Logiciel (France) and Eikon SPA of Italy. An East German Partner GFiA joined the consortium at the end of the project.

Braumeur has been involved with three EC funded R&D projects

The Programme

ESPRIT is the European Strategic Programme for Research and Development in Information Technology. It is administered by the European Commission in Brussels and provides financial support (normally at 50%) for projects which are approved. It is a collaborative programme in which work is carried out by consortia composed of organisations from different member states. The aim of ESPRIT is to develop enabling technologies in key areas of Information Technology, to foster collaboration and to pave the way to European standards.

The Project

The VASARI project aimed at helping European IT industry to achieve a strong position in an important world niche market of the 1990's and beyond - the artistic image process market.

By demonstrating the feasibility and benefits of high resolution and high quality digital image processing techniques in this field, the VASARI project provided a major stimulus to European IT industry in this field.

Initiated in July 1989 and completed in spring 1992 this project focused on three selected issues:

a) Colour change measurement and control of paintings

b) Painting transportation damage assessment

c) Computer aided learning in the artistic field

Preparation and Submission of the Project Proposal

This project proposal took two years to prepare. Dr Hemsley, MD of Brameur believes that anyone who waits until the Call for Proposals is published before preparing their proposal has little chance of obtaining funding. With this particular project the longer than usual preparation time was due to this being the first ESPRIT project in the cultural software field.

Originally the VASARI consortium was only UK/German, but as a result of a similar French-led proposal some members of this later proposal joined in plus an Italian member, SIDAC of Rome. Although the project had its fair share of managerial and organisational challenges by the end of the project working relations between members of the consortium were excellent. All the key players in VASARI remained the same throughout the project over 3 years.

Dr Hemsley's view is that if a company is new to EC R&D they should not be a lead partner but work with someone who has experience of EC R&D. Companies must be prepared to provide their best personnel both for getting funding for the project and its implementation.

The project provided work for a number of subcontractors, notably the UK company Time & Precision producing the precision engineering system forming one of the principal innovations of the project.

Exploitation

The VASARI project resulted in a prototype system for very high resolution scanning and analysis of paintings at the National Gallery which was the first of its type in the world. This system is now being used to support actual conservation research work. A second system has been installed at the Doerner Institute at the Neue Pinakothek in Munich. Development work is proceeding for further systems at the Uffizi in Florence, and also in Athens. Overall this system could be applied in a hundred of the world's top art museums, and the technology is transferable to other fields such as Crystallography.

VASARI project results in the Computer Aided Learning field have also been applied by several of the partners, especially SIDAC of Rome in the multimedia field. Brameur has pursued this route and has already produced a multimedia prototype of a Cultural Guide to London and taken on consultancy work in advising museums of their future multimedia system strategy. Two start-up companies have been established as a direct result of the project: VASARI Enterprises Ltd and CompART GmbH in Berlin.

One of the most surprising 'spin-off' successes of the VASARI project has been the creation of a Conference on Electronic Imaging & Visual Arts, EVA, which is being held for the fifth time in July 1994 at the National Gallery, London, with an attendance expected of over 200 from as far afield as Australia and Latin America. 'EVA' has helped significantly in raising awareness of progress and opportunities in this field and providing a useful forum for debate.

A key additional result which should lead to exploitation in the future is a set of follow-up EC supported R&D projects, including leading European IT companies, building on VASARI research to develop industrial stage prototypes for exploitation in the near future in the field of Arts image acquisition, processing and publishing, including multimedia, in which Europe has a strong natural advantage because of its remarkably rich cultural history.

Conclusion

Dr Hemsley: "The procedures can be time consuming and expensive as well as risky for a newcomer but, having persevered, we now feel very positive about ESPRIT, which has helped us achieve goals that would have been impossible on our own."

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THE THIRD FRAMEWORK PROGRAMME

European Strategic Programme for Research and Development in Information Technology (ESPRIT III)

Introduction

The ESPRIT programme is designed to help provide the European (IT) industry with the key components of technology it needs to be competitive in world markets. It aims to foster collaboration and pave the way to standards of European origin, while boosting pre-competitive R&D in the key areas of information technology. Following ESPRIT I (1984-88) and ESPRIT II (1988-92), ESPRIT III was launched in July 1992, and work on projects began late in 1992.

ESPRIT was launched in response to growing concern at the European IT industry's poor competitiveness. It was the result of initiatives taken by the Commission and the so called 'Round Table' of leading European IT Firms - GEC, ICL, Plessey (UK), Bull, CGE, Thomson (France), AEG, Nixdorf, Siemens (Germany), Olivetti and Stet (Italy) and Philips (Netherlands).

Technical Coverage

1: Microelectronics

The goal of the work in this area is to strengthen the European integrated circuit users' capabilities to develop advanced and innovative electronic systems for a broad range of applications, by providing them with a competitive European source of the necessary technologies and tools. The work on the development of CMOS technologies and relevant design, manufacturing and packaging techniques is carried out in conjunction with JESSI (Joint European Submicron Silicon). Specific actions are run for SMEs, to establish favourable conditions for their use of microelectronics. This covers training, and demonstration of IC capabilities and services.

2: Design and Engineering Technology for Software Intensive Systems

The object is to enhance the competitive advantage in IT user and vendor organisations through improvements in the ability to develop and exploit advanced software intensive systems. Three major lines of R&D action are being followed:

leading edge applications that illustrate the relevance of the key underlying technologies and provide a focus for their further development;

new methods, techniques and supporting technology to enlarge the effective use of software intensive IT systems and to improve the process of their design, engineering and management;

key technology components with a specific emphasis on improving the ability to build and use information management systems in an open, distributed and heterogeneous environment.

3: High Performance Computing, Network and its Applications

The work in this domain aims to promote the application of High Performance Computing and Networking (HPCN), and to demonstrate the cost-effective transfer of applications currently running on conventional systems to HPCN environments. It also supports new applications to gain experience in the use of new functionalities and levels of performance. The development of the next generation HPCN technologies and systems is also pursued.

4: Advanced Business and Home Systems; Peripherals

Work in this area promotes the development of open integrated solutions focused on specific applications, and the use and vertical integration of multimedia and related display and memory technologies. Applications lie in three distinct, but inter-related fields: professional applications, business applications and personal high volume electronics applications.

5: Computer Integrated Manufacturing and Engineering

This work contributes to the improvement of the competitive position of the European manufacturing and engineering industries by encouraging the development of advanced IT solutions for cleaner and highly efficient industrial operations and processes. It supports an integrative approach embracing engineering, logistics and operations, process automation and business functions, in a way which takes account of social, organisational economic and environmental concerns.

6: Basic and Long-Term Research

The intention here is to enhance the potential for future technological breakthroughs in information technologies, to contribute to the programme's main objectives from an upstream position and to reinforce inter-disciplinary links. Apart from projects in this area, there will be additional activities such as working groups and networks of excellence which will help produce added value to research through cooperation at European level.

7: Open Microprocessor Systems Initiative

This aims to provide a complete European microprocessor systems capability, building on existing strengths and exploiting the latest advances in microelectronics and software technology. The initiative is driven by the needs of the systems user to integrate single chip solutions using an open macrocell library approach. Open systems software and tools will allow the systems integrators to easily customise applications, providing an upgrade path from existing solutions.

8: European Systems and Software Initiative

In 1993, a major accompanying measure was introduced in the form of a pilot technology transfer programme aimed at encouraging and promoting best practice in system and software development. This measure provided support (100% of marginal costs) to organisations to improve their development process through application experiments. Nine dissemination projects will be responsible for broadcasting the results to a wider community. If the pilot phase is successful, further programmes may be launched under software best practice in Framework IV.

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Funding and Timescale

Esprit III was launched in July 1992 and has a total budget of 1532 million ECU (about £1.2 billion).

Previously around 370 projects were launched in ESPRIT II (as well as around 220 in ESPRIT I).

Under ESPRIT III (first call for proposals) almost 300 projects have been approved. Work on these projects, which began during 1992, represented about 850 million ECU of Community funding.

In ESPRIT III (second call) some 170 UK organisations are set to receive around 60 million ECU of EC support, over the next two years. More of these projects were led from the UK than any Member State.

Future Plans

There will not be further calls within ESPRIT III, but negotiations for the future IT programme within the fourth Framework Programme are already underway. If these progress smoothly, the new Information Technologies programme could be launched with Calls for Proposals commencing in late 1994 covering the following technical areas:

Software Technologies and Multimedia Technologies

Technologies for Components and Subsystems

Technologies for Business Processes; and Integration in Manufacturing

Open Microprocessor Systems Initiative; and High Performance Computing and Networking

Long Term Research

Contacts

UK

For general enquiries about the new European IT ESPRIT programme please contact DTI's ESPRIT UNIT:
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Electronics and Electrical Engineering Division
4th Floor Grey
151 Buckingham Palace Road
London
SW1W 9SS

Tel: 071-215-1378
Fax: 071-215-1967

For enquiries from Universities or Academic Organisations please contact:
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Science and Engineering Research Council
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(formerly Science and Engineering Research Council)
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Polaris House
North Star Avenue
Swindon
SN2 1ET

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Fax: 0793-411088

Commission

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THE THIRD FRAMEWORK PROGRAMME

Research and Development in Advanced Communications Technologies in Europe (RACE II)

Introduction

The aim of RACE is to establish a strong Community manufacturing industry in broadband communications and to accelerate the emergence of a competitive Community market for telecommunications equipment and services, at the same time working towards uniform standards throughout Europe.

The RACE Programme originally began in July 1985 by a Decision of the Council of Ministers to proceed with a 'Definition Phase' for a Community action in the field of telecommunications technologies. This led to the adoption of RACE I (Main Phase) by the Council of Ministers in December 1987. A further programme in the field of Communication Technologies, RACE II, under the third Framework (1990-1994) was adopted at the 7 June 1991 Council meeting.

RACE I developed Integrated Broadband Communications (IBC) demonstration equipment, standards and created a technological base for advanced IBC equipment and services.

RACE II is building upon the work of RACE I by focusing on 8 priority areas which are described below.

Technical Coverage

The work in RACE II is structured into three main parts as shown below.

Part I : Development and Implementation Strategies for IBC Systems, includes Services and applications concerns IBC systems design, architecture and operation; implementation and transition strategies; common operational environment; service infrastructure engineering/modular standardisation; generic applications strategies; service quality, security and reliability engineering.

Part 2 : Advanced Communication Technologies includes intelligence in networks/flexible communications resource management; mobile and personal communications; image and data communications; techniques for basic IBC system functions; integrated service technologies; techniques for advanced communications experiments; information security technologies.

Part 3 : Validation of Standards and Common Functional Specification for IBC includes integration of IBC demonstrators; service technology verification; applications experiments; test infrastructure and interworking; verification tools.

The work focuses on 8 priority work areas. These are:

1 IBC (Integrated Broadband Communications) R & D

2 Intelligence in networks/Flexible communications resource management

3 Mobile and personal communications

4 Image and data communications

5 Integrated services technologies

6 Information security technologies

7 Advanced communications experiments

8 Test infrastructures and interworking (horizontal R & D area supporting the other priority areas)

Future Plans

No further calls for proposals are expected for RACE II but negotiations for the fourth Framework Programme are underway. The New Communications Programme will be called Advanced Communications Technologies and Services (ACTS).

If you are interested in the programme you should ensure that the Commission is aware; write directly to the RACE central Office in Brussels (see 'Contacts').

All documents relating to the RACE programme, such as the workplan, should be obtained directly from the Commission.

Funding and Timescale

RACE II was adopted in June 1991 and has a total budget of 554 million ECU.

In the two calls for RACE I some 90 contracts were let with the UK being involved in 76. UK companies have received 23% of RACE I funds, and have had the highest success rate in Europe (30%) of converting proposals to contracts.

Under RACE II there was an initial Call for proposals on the 12 June 1991 which closed on the 16 September 1991. The Call was briefly re-opened until the 10 February 1992 to enable a more complete coverage of the tasks.

During 1993 there was a 73 million ECU call for proposals covering the following selected areas of the workplan:

Integrated Networks (IN) and interworking, implementation of services for personal communications space, integrated service and engineering (ISE), digital image communications, open network security and advanced communications applications experiments for the automative industry and rural areas.

Over 200 proposals were received in response to the call which had a closing date for receipt of proposals of 3 September 1993.

Under RACE II, UK organisations are involved with 75% of the projects so far. The enthusiasm of UK organisations, often small in size, to work with European partners has been especially encouraging.

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The Telematics Programme

AREA 1: Support for the Establishment of Trans-European Networks between Public Administrations

AREA 2: Transport Services (DRIVE II)

General

The third Framework Programme (FPIII) for EC Research and Technology Development (R&TD) included some 430Mecu of Community aid for "the development of telematics systems of general interest". Within this budget about 380Mecu was available for R&TD projects, accompanying measures and concerted actions.

Telematics is the exchange and processing of electronic data of all kinds between interoperable, networked, computer systems in different Member States of the Community. The Telematics programme supports R&TD projects aimed at developing and extending a trans-European electronic information exchange infrastructure.

The Telematics programme resembles other EC R&TD programmes in being industry-led, precompetitive and internationally collaborative, but differs in being much more applications oriented, focusing on the use of existing technologies to overcome real problems identified by users.

With the completion of the Single European Market in 1992 the necessity to transfer information throughout the Community has increased as a result of the deregulatory legislation leading to free flow of persons and goods. The Telematics programme is looking ahead to electronic information storage, exchange and interpretation in the Europe of 1993 and beyond. Issues being addressed in the current projects are centred on the development of standards profiles, security controls and messaging protocols, as well as the identification of regulatory obstacles to implementation. The UK is involved in some 100 of the 140 or so projects where funds have been committed.

The Telematics programme comprises 7 work areas, but with an emphasis on coordination and transfer of results across the programme. Some of these work areas build on programmes in the second Framework programme such as DRIVE, AIM, DELTA and EUROTRA.

Calls for Proposals for all Areas were issued in 1991 with some further limited Calls in some Areas in 1992 and 1993. No further Calls for Proposals are anticipated in 1994 for FPIII.

Planning for the EC's Fourth Framework programme of R&TD (1994-98) is under way. At their meeting in December 1993 Research Ministers agreed a Telematics budget of about 820Mecu, almost 7% of the total budget proposed for the Fourth Framework programme. An expanded Telematics programme is proposed, with activity lines grouped into three sectoral sub-programmes, and a fourth cross-sectoral sub-programme -

- service of knowledge (libraries, research networks, education and training);
- public services (healthcare, transport, administrations);
- quality of life (environment, rural and urban, elderly and disabled);
- generic or horizontal R&TD (telematic engineering, language engineering, information engineering).

During 1994 budget allocations will be agreed for each of these activities and detailed workplans drawn up in consultation with industry and the Member States. First Calls for Proposals may be made late in 1994.

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AREA 1

Support for the Establishment of Trans-European Networks between Public Administrations

Introduction

In order to implement successfully the Single European Market and its 'four freedoms' of movement (goods, persons, services and capital), national administrations will need to operate more closely with those in other member States. In a sense national administrations will have to function as if they embraced the whole Community. This 'virtual European Administration' will be partially built on the electronic exchange of information between national administrations in different Member States. IT/telecommunications networks, interoperable across the Community, are needed increasingly to achieve this objective.

Technical Coverage

Projects in this sub-programme are concerned with exploiting fully existing, rather than developing new, technology. The work is 'user-driven' and focused on the technical requirements for exchange of information between Member States within a particular application sector. Projects comprise a definition phase to model the user requirement, an engineering phase, and a verification phase where results will be tested on data within that sector. Each project involves end users of the relevant parts of Member States' administrations to ensure their needs are satisfied.

Although projects are sector specific, the programme emphasis is on the use and development of standards, functional specifications and architectures common both across the Community and in the different application sectors, all of which contributes to a greater interoperability of telematic systems. Application sectors were not specified in the work programme, but were determined by competition between the many proposals submitted.

Funding and Timescale

Area 1 of the Telematics programme has a budget of 41.6Mecu.

A Call for Proposals was published on 15 June 1991. Following evaluation and negotiation of proposals, 13 contracts were awarded at the end of 1991 or early 1992; one further (coordination) project was agreed in 1993.

Future Plans

The budget is fully committed and there will be no further Calls for Proposals under Framework III. However, the activity is retained in the Telematics Programme in Framework IV and a Call for Proposals may be issued in late 1994.

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AREA 2

Transport Services (DRIVE II)

Introduction

DRIVE stands for Dedicated Road Infrastructure for Vehicle Safety in Europe. Its activities contribute to the development of integrated trans-european transport services using advanced IT and telecommunications (Telematics) to improve the safety and efficiency of passenger and freight transport services, and reduce the impact of transport on the environment.

The work includes inter-modal links between road, rail and sea transport.

DRIVE II is particularly concerned with the needs of users and responsible for safety and the provision and maintenance of infrastructure and of transport services.

Technical Coverage

The activities are divided into three interactive parts: the definition of functional specifications in the context of a strategy for the use of technology and telematic systems for communication and traffic control, the development of new technologies and experimental systems, and validation work through pilot projects.

1. Strategies for the use of technologies, telematic services and systems and contribution to the definition of common functional specifications:

The results of the work carried out so far under DRIVE and relevant EUREKA projects have enabled the needs specific to road transport and the technologies and systems available for communications and traffic control to be identified and evaluated. On the basis of these results, strategies for using the technologies and systems will be sought in co-operation with the transport users, businesses, providers of transport-related services and the administrations concerned. Systems engineering work continues on an integrated transport environment, addressing the development and implementation strategies. It will contribute to the development of common functional specifications in terms of equipment, services and operational procedures, and to make recommendations to standard setting authorities such as CEN/CENELEC and ETSI for traffic control, freight transport management, driver support and road safety.

2. Technologies and experimental development of systems:

The work takes account of the technologies emerging from the information and communications initiatives, the results of research carried out under DRIVE and in other activities both in the Community and Member States.

Technologies and experimental systems for managing transport and controlling road traffic will be developed and evaluated for both passenger and freight transport.

Safety and communication systems concentrate on helping drivers on long journeys. The research takes into account man machine interactions so that on-board systems and equipment will not reduce safety and to ensure their effectiveness in communications with fixed infrastructure equipment.

Research and technological development work specific to freight transport, including freight traffic management and dangerous goods transport, is included.

In the public transport area, work on monitoring and control continues to evaluate the cost-effectiveness of systems for on-line monitoring, scheduling and control for users and providers of services and to establish the necessary functional specifications.

The technological solutions will have to ensure that the telecommunications equipment to be applied matches, in terms of size, cost and performance, the intended applications and markets identified.

Special attention will be given to existing and emerging systems linked with satellite and digital cellular communication networks. Of particular importance is the assessment of the systems able to provide incident detection and provide usable information to network managers and road users using road-vehicle communication links.

3. In order for the new systems and devices to be accepted by both the general public and the relevant authorities, they must be of proven performance and reliability and their potential impact on the environment must be assessed.

This requires full-scale pilot projects to establish whether technologies serve user needs, contribute significant gains in efficiency (with existing and new infrastructure), safety and environmental benefits, are cost effective and provide satisfactory system security and interoperability. These are oriented towards the integration of multiple subsystems, functions and services which require strong pre-standardization efforts. The sector actors are all closely associated with the work if not directly involved.

These experiments cover areas including integrated urban traffic management; monitoring of air pollution; integrated motorway traffic management; vehicle-roadside communications; driver information; transport demand management; public transport; freight transport and trip planning.

The potential for rigorous evaluation was a prime requirement in selecting and designing the pilot projects. Projects have also evaluated technologies and systems covering a wide range of applications.

Funding and Timescale

There has been 128 MECU between 1991 and 1994. All funds have now been allocated to specific projects.

Future Plans

Work on Transport Telematics is planned to continue under the fourth Framework Programme between 1995 and 1998. Up to 280 MECU will be available for work on all transport modes (Road/Rail/Air Traffic Management/Water). Calls for proposals are expected late 1994/early 1995.

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The Telematics Programme

AREA 3: The Health Care Programme (AIM)
AREA 4: Flexible Distance Learning (DELTA)

AREA 3:

The Health Care Programme (AIM)

Introduction

The healthcare section of the telematics programme is usually referred to as AIM (Advanced Informatics in Medicine), a research and development programme with the objective of applying information and communication technologies to health care. It aims to increase harmony and cohesion in this area across Europe, to improve the quality and cost-effectiveness of medicine and also to strengthen the competitiveness of European telematics industry by stimulating the demand for new services.

During an initial exploratory phase during 1989 and 1990, 42 projects were funded from 20 million ECU budget (about £14 million). This was a precompetitive, shared cost programme and was completed December 1990.

It was always intended that, provided the Exploratory Phase was judged to be successful, there would be an AIM Main Phase and this was approved as part of the telematics line within Framework III.

Technical Coverage

The new programme, whilst building on the work of the Exploratory Phase, sets out to develop tools, techniques and practises supporting a common European approach to Health care Informatics and Telecommunications and to guarantee their acceptance by promoting close collaboration between all involved - academics, industry and the whole spectrum of health care users. This involves work in three main directions: definition of strategies, research and development, and validation and integration.

The main task areas being addressed are:

1. Strategies for the use of telematics technologies, systems and services, with contributions to the definition of common functional specifications:

(a) Identification of user needs, regulatory tools, incentives and criteria for the appropriate use of technology in health care.

(b) Harmonisation of medical and health care management data and technology, common functional specifications, standards and communications protocols.

2. Development of telematics technology applied to medicine

(a) Alphanumeric data and coding standards
(b) Images and biosignals
(c) Integrated instrumentation and devices
(d) Knowledge based and decision support systems
(e) Medical use of multimedia workstations
(f) Health care communication systems
(g) Telecommunication systems for medicine
(h) Modularity and integration of medical information and archiving systems
(i) Technologies and services for the handicapped and elderly

3. Validation and integration

(a) Pilots for integrating medical equipment and information systems: these include:

Computer-aided therapeutic systems
Architecture in an Integrated Biomedical Laboratory
Use of mobile telematics in emergency health care
Telematic and Information Systems in a departmental environment
Development of a pilot for a decentralised hospital information system
Development of a pilot for the use of machine-readable cards
Development of medical software engineering techniques and tools

(b) Validation applications

Funding and Timescale

As part of the telematics line of Framework III the health care programme has a budget of 109 million ECU over the period 1991-1994.

A Call for Proposals worth 97m ecu was published in June 1991 and proposals were delivered to the Commission by 16 September 1991. 193 project proposals were received by the date, and following evaluation and negotiation, 37 projects were awarded contracts; work began in January 1992. 35 projects are currently in action.

A further call was made on 1 May 1993 with funds of almost 12m ecu. The evaluation of that call was completed in July 1993 and awards were negotiated in the latter part of 1993. The call was designed to provide integration, interconnection and validation of key AIM projects; large scale demonstrators; and the extension and strengthening of existing AIM projects. No further calls for proposals are in prospect until the fourth Framework Programme has been adopted .

Projects are for up to three years, but there is an annual audit and review. The programme includes some supporting activities, with an Accompanying Measure "ACOSTA" developing an Awareness Programme to promote the results of AIM; several Concerted Actions identifying work areas in Primary Care, Nursing, Medical Records, Education and Training, and Case Mix/Resource Management; and some specific studies.

Future Plans

The drafting of the work plan for the fourth Framework Programme is being undertaken now with a view to completion in late spring 1994. It is likely to be built up on the following broad basis:

- to meet user requirements based on organisational, institutional and social needs and provide appropriate telematic tools, services and systems to enable widespread use

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of the technology.

- validate and demonstrate innovative technologies, especially integrated health care telematic services.
- support the implementation of healthcare telematic systems by developing system architecture and specifications and accelerating European standards for healthcare telematics.

The main areas in which activity might concentrate are:

- telemedicine (direct communication between centres of medical expertise and remote doctors, nurses or patients and emergency teams) and portable systems;
- unifying results in hospital information systems and clinical work stations with particular reference to multi- media and the interchange of medical images;
- supplementary work on document interchange, nomenclature, semantics and syntax;
- knowledge based and decision support systems.

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AREA 4

Flexible Distance Learning

DELTA

DELTA stands for Developing European Learning through Technological Advance. The initial Exploratory Action was adopted as part of the Research and Development Framework Programme (1987-1991). DELTA sought to examine expected technological advances and harness these to European learning needs. Work was also done to develop tools to help trainers throughout Europe understand and use new technologies.The programme was superseded by DELTA'91 which forms part of the Telematics programme, and runs from (1992-1994).

22 projects were selected for the programme. Five of these are UK led and the UK is involved in all but five of the projects.

Following additional funding allocated in 1993, a Concerted Action was set up to disseminate information and transfer experience to Nordic countries through seminars and workshops. Funding is available to cover travel to, and attendance at, workshops and meetings.

A further call for projects was issued in April 1993. Following a technical evaluation and consideration by the Telematics Management Committee, 8 of the original projects were extended and 7 new projects were selected. The UK leads on 2 of the new projects.

Technical Coverage

The programme focuses on the needs of the users of electronic distance learning services and their need for interoperability throughout the EC. Activities concentrate on harmonising and adapting the existing technologies and on testing the performance of the various possible distance learning systems and technologies. The work is carried out in three independent areas of research:

I Implementation Strategies and Scenarios: concerned with the use of technologies and telematic systems including the definition of common functional specifications for the optimal implementation of distance learning services.

II Technology and Systems Development: concerned with refining the technology to achieve the appropriate telematic facilities for distance learning services.

III Pilot Testing and Validation: concerned with setting-up experiments to integrate facilities to serve real needs so that the performance of different technological configurations can be assessed and evaluated.

Contracts were awarded by open tendering procedure, by means of the call for proposals published in the Official Journal of the European Communities.
Organisations eligible to participate in the flexible and distance learning line of the new Telematics programme include: telecommunications network operators, research establishments, universities, and production and services undertakings, including small and medium sized enterprises.
Projects involve the participation of at least two independent partners in the Community not all from the same Member State. Within each project at least one partner is an industrial undertaking and another partner has education and training interests.

Links with other EC programmes such as COMETT, RACE, ESPRIT etc are important.

Funding and Timescales

The initial budget for the Telematics programme was 380 mecu for the period 1990-1994. This was increased by 51 mecu in 1993. 54.4 mecu was initially allocated to the flexible and distance learning area of the programme with a further 6 mecu allocated in 1993.

Future Plans

There will be no more calls for proposals, however the fourth research and development framework will include a follow on programme to DELTA. Work will focus on research into the development of technology and systems and their integration into experimental networks, to provide effective user-led education and training services.
The Commission have issued a call for ideas for the draft Telematics workplan. This call includes a copy of the working document for Telematics and can be obtained from the contacts below.

Management of the Programme

Management of the programme is the responsibility of the European Commission, assisted by a committee composed of two representatives from each Member State.

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The Telematics Programme

AREA 5: The Libraries Programme
AREA 6: Linguistic Research and Engineering
AREA 7: Telematics Systems for Rural Areas

AREA 5

The Libraries Programme

Introduction

In 1985, the European Council of Ministers passed a resolution to support the development of library systems and services in the European Community. This resolution led to various meetings and discussion papers, the main one being the "Plan of Action for Libraries in the EC" which was published in draft form in the summer of 1988 and revised in February 1989. This Plan was distributed widely throughout the 12 Member States. It was welcomed by the Community as the first proposed action at Community level dedicated to library co- operation.

The library scene is not homogeneous. Preliminary studies have demonstrated that the development of libraries and of library automation in the different member states is uneven and different types of libraries have differing objectives, priorities and user populations.

Initial Community activity in the libraries area cannot attempt to resolve all the long term issues. It can only serve to initiate a process which will ultimately modernise library services to users. The Programme will therefore be selective, concentrating on urgent problems which can catalyse change in a concrete and practical way.

Several test-bed pilot projects were supported (through the IMPACT programme) to set the scene for the Libraries programme. The principal projects were to develop compatible CD-ROM products containing national bibliographies for seven European national libraries, and to investigate and implement the Open Systems Interconnection protocol for interlending between France, the Netherlands and the UK. Various smaller "ground clearing studies" were also being supported alongside the programme itself; most recently, three on neural networks, library performance indicators, advanced search techniques and library "smartcards" for which tenders were let in the summer of 1993 (a UK consortium from De Montfort University and the Library and Information Statistics Unit at Loughborough winning the contract for the library performance indicators.)

Technical coverage

The Plan of Action sets four principal objectives. It is designed to: promote the availability and accessibility of modern library services throughout the Community; introduce new information technologies into libraries in a cost-effective way; encourage standardisation; and lead towards the harmonisation and convergence of national policies. The Plan is structured into four action lines within the context of which a range of individual shared-cost co-operative European projects can be launched in conjunction with national and regional policies for libraries. The action lines are structured as follows:-

Action Line I Computerised bibliographies: to create, enhance and harmonise machine readable bibliographies and union catalogues and to develop the necessary tools and methods for the retrospective conversion of catalogues of internationally important collections.

Action Line II International linking of systems: to provide a coordinated incentive to test and apply new telecommunication services, analyze their cost-effectiveness and ensure compatibility through appropriate standards so that libraries will be able to set up networked services.

Action Line III Provision of new library services that will enable libraries to satisfy user needs more efficiently and effectively through the exploitation of existing resources in libraries.

Action Line IV Stimulation of a European market in telematic products and services specific to libraries: to encourage the private sector to investigate the library market and to implement new products which will have cost benefits for the library community.

Funding and timescale

Approximately 22.5 MECU plus about 3 MECU top-up will be allocated to libraries over a four-year period, from 1992-1996. Up to the end of 1994 approximately 22.8 MECU will have been spent or allocated to 30 specific projects funded under the 4 Action Lines following calls for proposals in 1992 and 1993.

Future Plans (what will happen under Framework IV)

See general introduction to the Telematics pages of this guide.

Contacts

At the Commission's request, each Member State has set up a national focal point to ensure that each country participates effectively in the Programme. In the UK, the focal point is jointly located in the Department of National Heritage and the British Library. They are advised by the Advisory Committee on the European Library Plan (ACELP) which was set up in 1990 and membership of which is by personal invitation. Further information on the Libraries Programme may be obtained from:-

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AREA 6

Linguistic Research and Engineering

Introduction

The aim of this area is to develop basic linguistic technologies which can be incorporated into the large number of computer applications where natural language is an essential ingredient, with a view to accommodating or overcoming limitations and inefficiencies within the Community brought about by different natural languages, as well as deriving benefit from the rich diversity of Europe's linguistic experience.

Technical coverage

The area is divided into three parts.

1 Research aimed at the improvement of the scientific basis of linguistic technologies.
The themes for proposals: Improvement of the interlinguality of the linguistic representation of text/discourse; Use of domain-specific knowledge to constrain linguistic interpretation of text/discourse; Interfacing with speech technology; Use of advanced computational technologies; Economic and social impact of new linguistic technologies.

2 Creation of common methods, tools and linguistic resources.
The themes for proposals: Software tools; grammars for the Community languages, general dictionaries (mono- and multilingual) covering the Community languages; terminology collections; textual and phonetic corpora and pre-normative research for linguistic tools and resources.

3 Applications based on the common linguistic tools and resources.
The themes open proposals; Multi-lingual machine translation (EUROTRA); multi-lingual abstracting and indexing; aids for mono- and multi-lingual document generation; integration with speech analysis and synthesis; multi-lingual interfaced to information systems; Content analysis for building knowledge bases from natural language text; and computer aided instruction especially in the context of language teaching.

Pilot applications and demonstrations projects will help to test the progress of research work and to demonstrate the technical and economic feasibility of tool, methods and resources in an operational environment.

Funding and Timescale

LRE has been allocated 22.5 MECU + top up. Two Calls for proposals have taken place and the funds have been fully allocated. A further call (supported by APAS funds) is expected in January 1994.

The amount has not been determined, but should exceed 6 MECU.

Future Plans

The area is to be known as Language Engineering in Framework IV, where it is integrated into Horizontal RTD. Notable new emphases in the planning (not yet agreed) are a greater stress on integrating speech processing technology, technologies for teaching and learning lanaguages, and building common resources of grammar and dictionaries for computer use. The budget is likely to be substantially greater, reflecting the enlarged scope, and longer timespan (4 years) of the new programme.

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AREA 7

Telematics Systems for Rural Areas

Introduction

The goal is to create the conditions for geographically dispersed small businesses to provide more diverse employment opportunities and a more balanced economic activity in rural areas; establish a basis for provision of improved services to dispersed and isolated populations; raise the level of awareness of the potential of information and communication technologies in rural areas; encourage manufacturers and service providers to make equipment and services easier to use by rural communities; and ensure that the applications of telematic systems in rural areas do not contribute to further centralisation of business and administrative activities and a loss of the cultural and economic diversity of rural areas in Europe.

In order to achieve these objectives, the actions are structured as follows:

Part I: Co-ordination and consensus development with industry and rural development agencies;

Part II: Identification of needs and opportunities for telematic services;

Part III: Specification of service and technology requirements.

Status report

16 Projects let so far, in the context of rural areas, which relate to: delivery of information and organisation, market implementation and psychological aspects of teleworking, technology strategy for the provision of infrastructure to support advanced telematic services, telematics applications for tourism and leisure, topological mapping of mediterranean rural areas, distributed inter-regional agri-tourism multimedia management systems, telematic systems database and management, services and applications for rural business activities, professional and financial services, analysis of on-going development projects involving telematic systems use, evaluation of telematics applications.

Funding and Timescale

Approximately 14 MECU was allocated to the rural programme to cover the period up to the end of 1994.

A Call for proposal was made on the 15 June 1991 and closed on 16 September 1991. The Call was reopened until the 30 April 1992 so that tasks could be more adequately addressed.

Work is progressing towards the programme objectives in the 16 projects under contract. UK organisations lead 5 out of the 13 projects in which they participate. The Commission plans to draw together, in a strategic document, the results of the programme, during 1994.

Contacts

Further information on the Rural Programme may be obtained from:

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Current Services offered by DTI contacts:

i) Advising upon the suitability of new proposals.
ii) Liaising with proposers during calls
iii) Maintaining contact with UK participants during programme operation
iv) Monitoring the progress of projects by participation in management committee and selected consultation meetings
v) Providing advice on programme operation

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The Third Framework Programme

Industrial and Materials Technologies (BRITE/EURAM II)

General

The Industrial and Materials Technologies programme continues the work of BRITE/EURAM and part of the Raw Materials and Recycling programme.

The principal objective of this four year programme has been to contribute to the rejuvenation of European manufacturing industry by strengthening its scientific and technological base through research and development activities. This objective has been realised through advancing the technologies required to address the whole life cycle of materials with the aim of reducing the design-to-product lead time and improving the manufacturing process. The activities pursued in the programme have been intended to lead to the general development of the Community towards economic and social cohesion, and a reduction in the environmental impact of the manufacturing of material goods.

Technical Coverage

The programme is divided into three technical areas.

AREA 1: MATERIALS - RAW MATERIALS

1.1 Raw Materials

1.1.1 Exploration Technology;
1.1.2 Mining Technology;
1.1.3 Mineral Processing.

1.2 Recycling

1.2.1 Technology for Recycling and Recovery of Non-Ferrous Metals;
1.2.2 Recycling, Recovery and Reuse of Advanced Materials.

New and Improved Materials and their Processing

1.3 Structural Materials
1.3.1 Metals and Metal Matrix Composites;
1.3.2 Ceramics, Ceramic Matrix Composites and Advanced Glasses;
1.3.3 Polymers and Polymer Matrix Composites.

1.4 Functional Materials for Magnetic, Superconducting,Optical, Electrical and Biomaterial Applications

1.4.1 Magnetic Materials;
1.4.2 High Temperature Superconducting Materials;
1.4.3 Electrical and Ionic Conducting Materials;
1.4.4 Optical Materials;
1.4.5 Biomaterials.

1.5 Mass Commodity Materials

1.5.1 Packaging Materials;
1.5.2 New Construction Industry Materials.

AREA 2: DESIGN AND MANUFACTURING

2.1 Design of Products and Processes
2.1.1 Innovative Design Techniques for Specific Objectives;
2.1.2 Design Methodologies for Advanced Components;
2.1.3 Design for Reliability.

2.2 Manufacturing

2.2.1 Tools and Techniques for High Quality Manufacturing;
2.2.2 Manufacturing Techniques for Industrial Use of Advanced Materials;
2.2.3 Integrated Approach to Chemical Engineering.
2.3 Engineering and Management Strategies for the Whole Product Life Cycle
2.3.1 Design Integrating Strategies;
2.3.2 Engineering;
2.3.3 Human Factors in Engineering and Manufacturing Management.

AREA 3: AERONAUTICS RESEARCH

3. Activity in Aeronautical Technology

3.1 Environment Related Technologies;
3.2 Technologies of Aircraft Operation;
3.3 Aerodynamics and Aerothermodynamics;
3.4 Aeronautical Structures, Materials and Manufacturing Technologies;
3.5 Avionic System Technologies;
3.6 Mechanical, Utility and Actuation Technologies.

Different Forms of Support

All industrial companies, universities, other HEIs and research organisations have been eligible to take part in the programme (except under the Feasibility Awards scheme which is for Small and Medium-sized Enterprises only). The conditions for participation have varied according to the different forms of support.

Industrial Applied Research

The principal form of support has been through the shared-cost action described in the introduction to the guide, but with the additional rule that at least two legally independent industrial enterprises from two different Member states must be involved. The total size of each project is normally in the range 1.0 to 5.0 MECU and involves at least 10 man-years of activity.

Focused Fundamental Research

In some technology areas industrial progress may seem to be hindered by weakness in basic materials science and in cases, a small number of this type of project have been sought. (With up to 10% of the IMT budget available for this type of activity). Transfrontier co-operation is still required but it is not compulsory to include an independent industrial enterprise. However, to ensure that there is an industrial focus, there has been a requirement for a degree of industrial endorsement for the proposed research. Projects in this category are normally in the range of 0.4 to 1.0 MECU total cost, and involve at least 10 man-years of activity.

Feasibility Awards for SMEs

This scheme has enabled Small to Medium-sized Enterprises (those having up to 500 employees) to apply for Community support to establish the feasibility of a device, process or concept as a means of enhancing their status before seeking partners for a proposal under the shared-cost action. The EC has been prepared to support up to 75% of the cost (maximum 30,000 ECU) of research lasting up to 9 months. Separate guidance notes for applicants are issued and separate calls for proposals are made for Feasibility Awards for SMEs.

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Co-operative Research Action for Technology (CRAFT)

Co-operative research is aimed at a large number of firms, in particular Small and Medium-sized Enterprises who do not have their own research installations, in order to solve common technical problems. Co-operative research enables these SMEs to come together and assign outside organisations (research association, university or firm) to carry out the research on their behalf. Projects in this category are in the range of 0.4 to 1.0 MECU total cost, with a duration of 1-2 years.

Targeted Research

Targeted Research actions aim to co-ordinate a group of individual research projects whose specific objectives, arising from technical areas 1 and 2, converge in a common goal of general interest. This requires participation in concertation activities.

Concerted Actions

These consist of actions by the Community to co-ordinate individual research actions carried out by Member States. The EC has been able to provide up to 100% of the co-ordination costs (maximum 400,000 ECU), but make no contribution to the research costs.

Specific Training

These types of specific training actions are covered:

(i) Research fellowships in the context of selected and ongoing projects, plus subsidies to host organisation to cover training expenses within the BRITE/EURAM II project:

(ii) Specific grants to enable existing project consortia to engage temporary research scientists for better promotion of the results of the work.

(iii) Support for courses and conferences for training of European technologies in specific tasks related to the BRITE/EURAM programme.

Funding and Timescale

The programme was launched in December 1991 and has had a budget of 847 MECU over four years.
There have been two calls for submission of Industrial Research, Focused Fundamental Research and Concerted Action proposals, the second of which closed on 26th February 1993.
The programme closed at the end of December 1993.

Future Plans

It is expected that there will be a successor programme under Framework IV.

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The Third Framework Programme

Measurement and Testing

Introduction

A programme on measurement and testing has been running from late 1992 until 1994. This follows on from earlier programmes on the Community Bureau of Reference (BCR) which are now closed to further applications.

The programme has aimed to improve measurements and analyses carried out in Member States of the European Community in order to eliminate discrepancies which can be the source of disputes and which could hinder the operation of the Single European Market. Implementation of the programme consists of:

- developing collaboration between laboratories of the Member States, for example through inter-comparisons in which the participants collaborate until they agree on their respective results;
- developing means of calibration, such as transfer standards and reference materials, which are necessary for laboratories to verify their performance and to maintain confidence in the results;
- developing new measurement techniques where these are required, particularly for the implementation of Community policies.

Technical Coverage

The technical content of the programme covers a wide variety of topics relating to the measurement of physical quantities (applied metrology) and chemical analysis.

The Measurement and Testing Programme is directed towards four main objectives:

- support regulations and directives. The work will consist in developing, improving or harmonising the test methods required for the preparation of new regulations and directives concerning agriculture, environment, health and industrial products;
- sectoral problems. The work here will include collaborative projects to solve problems of measurements and testing arising in the course of the preparation of new European standards; collaborative projects to solve measurement problems arising in industry in the application of standards; and the organisation of inter-laboratory comparisons to facilitate mutual recognition agreements between testing laboratories;
- common means of calibration for the Community. For fields such as food, agriculture, environment and bio-medical analyses, reference materials will be developed in order for laboratories to establish the traceability of their analyses or tests to a common reference. Similarly, transfer standards will be developed for the smaller national metrological laboratories to establish traceability to primary standards held by larger organisations;
- development of new methods of measurement. Work in this area may include techniques for calibration in automated manufacturing systems, methods of measurement in micro-metrology, food control, the chemical form of pollutants, and for certifying reference materials; and research and development into measurement principles which could lead to new instrumentation.

The choice of projects has been guided by a set of criteria, available on request, which includes consideration on the economic importance of the problem to be addressed, its role in Community trade, and its relation to Community policies. By the nature of the programme, the results are widely disseminated through reports and similar mechanisms. In the field of analytical chemistry, most projects so far have produced results in the form of certified reference materials which are then sold by the Commission, although the range of activities in this field is now being broadened.

Funding and Timescale

The Measurement and Testing Programme has had a budget of about 53 million ECU.

Following discussion of the technical content of the Measurement and Testing Programme between the Commission and Member States and consultation with the European Parliament, it was approved by the Council of Ministers in April 1992.

The Measurement and Testing Programme budget of about 53 MECU is allocated approximately as follows:

Area 1:	Support for Regulations and Directives 12.3 MECU
Area 2:	Sectoral testing problems 13.3 MECU
Area 3:	Support to means of calibration 13.4 MECU
Area 4:	Developments of new methods of measurement 14.0 MECU.

Contracts have been placed from late 1992.

In July 1992, the Commission issued a call for project proposals in all four Areas of the Programme, with a deadline in September 1992.

The proposals were evaluated by the Commission's panel of independent expert advisers in October-December 1992, and projects for support have been chosen on the basis of this evaluation. Sufficient proposals of quality were identified to commit all the available funds for areas 1 and 4. A limited further Call for Proposals was announced in December 1993 with a deadline of 29 April 1994, and this will result in the commitment of the final 12 MECU to Areas 2 and 3.

CONTINUED

Future Plans

A successor Measurement and Testing programme starting in 1995 is anticipated under the Community's fourth Framework Programme. It is expected that details will become available during the second half of 1994.

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Services offered by DTI contact:

(a) Further explanation as to background and current status of the programme;

(b) Early warning (to enquirers registered on a mailing list) if calls for proposals and new developments;

(c) General advice on applicability to the Programme of potential proposals (advice cannot be provided on unsolicited draft proposals).

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The Third Framework Programme

Environment Programme 1991-1994

Introduction

The specific programme of environmental research 1991-94 (under the Third Framework Programme 1990-94) has provided an extension to and expansion of the two environment-related research programmes "Science and Technology for Environmental Protection" and "European Programme on Climatology and Natural Hazards", under the Second Framework Programme 1987-91. Under the Environment Programme 1991-94, greater emphasis has been placed on problems of a global nature and the economic and social aspects of environmental issues have been fully addressed for the first time.

Technical Content

The Programme has been divided into the four areas set out below:-

Area I. Participation in Global Change Programmes: including climate change (natural, anthropogenic); climate change impacts; global changes in atmospheric chemistry (stratospheric ozone, tropospheric physics and chemistry); biogeochemical cycles; ecosystems dynamics.

Area II. Technologies and Engineering for the Environment: including assessment of environmental quality and monitoring; technologies for protecting and rehabilitating the environment (including re-cycling, with the exception of non-ferrous metals' recycling which is handled within the Industrial and Materials Technologies Programme); major industrial hazards; environmental protection and conservation of Europe's cultural heritage.

Area III. Research on Economic and Social Aspects of Environmental Issues: including the human being, nature and society (perception, knowledge and behaviour; cultural, ethical, religious, philosophical and historical aspects); environmental policy; international aspects.

Area IV. Technological and Natural Risks: including risks from agricultural technologies and land-use practices to soil, surface and groundwater quality; regional aspects of ecosystems protection; environment and human health; risks to health and the environment from chemicals; seismic hazard and volcanic risk; wildfire prevention; desertification.

Funding and Timescale

The total amount of funding under the Programme (1991-94) has been 469 Mecu, 150 Mecu of which has been reserved for the Community's Joint Research Centre. The remainder has been allocated to so-called indirect actions, comprising shared cost contract work and concerted actions.

The following provides an indicative breakdown of expenditure relating to the indirect action component -

Area 1	(Participation in Global Change Programmes):	40%
Area 2	(Technological & Engineering for the Environment):	25%
Area 3	(Economic and Social Aspects):	6%
Area 4	(Technological and Natural Risks):	29%

The FINAL Call for Proposals was published in May 1993 with a submission deadline of 19 July 1993.

Future Plans

THERE WILL BE NO FURTHER CALLS FOR PROPOSALS UNDER THIS PROGRAMME. It is anticipated that there will be a new Environment Programme under the Fourth Framework Programme.

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The Third Framework Programme

Marine Science and Technology (Mast II)

Introduction

Mast II is a direct development of Mast I (1989-1992) which was a pilot programme on marine science and technology. Mast II runs from 1991 to 1994 and its specific objectives are:

- to contribute to a better knowledge of the marine environment and its variability, in order to improve its management and protection and to predict change;
- to encourage the development of new technologies for the exploration, protection and exploitation of marine resources;
- to improve transnational coordination and cooperation amongst marine RTD programmes in the member states, and to help increase the effectiveness of these programmes through better use of research facilities, and to promote the transfer of expertise and knowledge;
- to provide the technical basis for, and encourage the development of, common norms, standards and design guidelines;
- to facilitate training and exchange of personnel;
- to assist (as far as possible) Community participation in international ocean programmes.

Technical Coverage

Mast II is divided into 5 areas. These are described briefly below:

Area I : Marine Science

The objective is to study marine processes and fluxes in European coastal waters, in the seas surrounding the Community, in the North Atlantic ocean and in subpolar Arctic seas. Topics include circulation and exchange of water masses, biogeochemical cycles and fluxes, interface and boundary processes, biological processes and marine geosciences.

Area II : Coastal Zone Science and Engineering

The objective is to gain a better understanding of coastal physical processes and morphodynamics, and to promote the application of modern principles in coastal engineering and management.

Area III : Marine Technology

The objective is to encourage the development of existing and new instruments required by marine science and to promote enabling technologies necessary for the advancement of marine science and related future industrial developments. Topics include instrumentation for science, underwater acoustics, exploitation of marine biological resources and enabling technologies (such as underwater signal transmission, imaging, marine applications of modern robotics and testing advanced materials/components for use in marine instrumentation.

Area IV : Supporting Initiatives

These include European ocean data and information exchange, preparation of norms and standards for marine science and technology, modelling coordination, research vessel and equipment coordination, design of large scale facilities, advanced training and new approaches for surveying and mapping.

Area V : Large Targeted Projects

The objective is to address problems which require large-scale multidisciplinary coordinated research efforts. For the moment, two projects are planned. Topic V.1 focuses on the Mediterranean and topic V.2 on the North Atlantic.

Funding and Timescale

The programme was adopted in 1991 and has a total budget of 118 Million ECU.

There have been repeated calls for proposals in all areas except for Area IV. The process of adopting ideas in Area IV is meant to be continuous over the duration of the programme.

Future Plans

There will be no further calls for proposals under this programme. Any additional funds will be used to fund high priority proposals on the reserve list. It has been agreed that marine science and technology will continue to be supported under the fourth Framework Programme but with greater emphasis given to strengthening the technological base of the marine industry. The intention is to subsume marine technology under the Environment Programme but with a separate budget line.

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The Third Framework Programme

Biotechnology (BIOTECH)

Introduction

The BIOTECH programme, for research in the field of biotechnology, covers the period 1992-1994. It complements the BRIDGE programme which was launched in January 1990 and came to an end in December 1993.

BIOTECH is orientated more towards basic biology than was BRIDGE and is a programme of prenormative research, with emphasis on the safety assessment of new techniques and novel products. It aims to foster transnational research, and to add to basic biological knowledge and develop application technologies for agriculture, industry, health, nutrition and the environment.

The Office of Science and Technology have lead responsibility for managing the UK's participation in the programme.

Technical Coverage

The programme supports research in the following areas:

1 Approaches at the Molecular Level, including the structure and function of proteins involved in the essential functions of living cells, studies of gene structure and function, and the expression of genes.

2 Approaches at the Cell and Organism Level, including cell regeneration mechanisms, knowledge and control of cell development, methods of in vitro testing of the toxicity of new molecules, and improvement of knowledge of the metabolism of plants, microorganisms and animal livestock and of intercellular communication systems.

3 Ecology and Biology of Populations, including the impact of biotechnology on the environment, and problems of conservation of genetic resources.

Provision is made for applications of information technology to these areas.

Funding and Timescale

BIOTECH has a total budget of 186 million ECU under the third Framework Programme. The first call for proposals was in July 1992, the second, and third calls were published concurrently in Summer 1993 with the respective deadlines of 31 August and 15 December.

Future Plans

There is a slim possibility of a fourth call for proposals under Framework Programme III.
It is anticipated that there will be some provision for research in the biotechnology field under the fourth Framework Programme.

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The Third Framework Programme

Agriculture and Agro-Industry Including Fisheries

(AGRICULTURE)

Introduction

This programme forms a part of the Third Framework Programme (1990-1994) for Community activities in the field of research and technological development.

The main objective has been to provide a better concordance between the production of land and water based biological resources and their use by consumers and industry. Its aims were to improve the quality and variety of products; reinforce the competitiveness of businesses in line with other Community policies; contribute to better rural and forestry management; and ensure proper protection for the environment. It also promoted pre-normative research to establish a sound scientific basis for setting standards, particularly for food.

Technical coverage

The programme identified four areas of interest:

1. Primary Production.

Including improvements to aid change towards high quality, commercially viable products for both food and non-food purposes; improved management, particularly in animal health and welfare and in remedies for over-fishing; work on soil erosion, loss of fertility, and deforestation for areas lagging in development.

2. Inputs.

Including more profitable but environmentally friendly inputs; improved strains of plants, animals, and fish (for better pest resistance, yield and quality); integrated and biological pest control systems; and new systems for monitoring and control.

3. Processing.

Including new separation, extraction and processing methods for raw materials, giving more useful products and less waste, particularly where they improve safety and maintain or increase the nutritional value of processed food.

4. End Use and Products.

Including work to give a better understanding of the characteristics required in end-use products; more reliable manufacturing processes (particularly in toxicological and quality control of foodstuffs); new processing technologies and biologically based chemical substances, with particular emphasis on biodegradable materials.

Future Plans

Provision is being made in the Fourth Framework Programme for continued support for agricultural, agro-industrial and fisheries research.

Funding and timescale

The programme runs to 31 December 1994 but it is expected that the remaining research funds will all have been allocated before then following the latest call for proposals (closing date 14 January 1994). The total budget for the programme was 377 million ECU.

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The Third Framework Programme

Biomedical and Health Programmes (BIOMED)

Introduction

The Biomedical and Health Research Programme (BIOMED I) follows on from, and builds upon, the fourth Medical and Health Research Programme (1987-91, MHR4). It was approved by the Council of Ministers on 9 September 1991.

Its objectives are to contribute to improving the efficiency of medical and health research and development in Member States, in particular:

- by better coordination of Member State's research and development activities;
- by application of the results through the Community cooperation and a pooling of resources;
- by encouraging basic research in the field of biomedicine and health throughout the Community.

Technical Coverage

Area 1 - Development of coordinated research on prevention, care and health systems.
This area covers the harmonisation of methodologies and protocols in epidemiological, biological, clinical and technological research including drugs and the administration of medicines, occupational medicine, biomedical technology and health services research.

Area 2 - Major health problems and diseases of great socio- economic impact.
Major health problems, and economically and socially significant disease groupings are being considered, in particular the following:

AIDS
Cancer
Cardiovascular disease
Mental illness and neurological disease
The ageing process, and age-related health problems and handicaps

Area 3 - Human Genome Analysis
This area subsumed the Human Genome Analysis Programme (1990- 1992) in June 1992. The research is aimed at the completion and integration of the genetic and physical maps. In addition, the study of the genetic basis for biological functions is being pursued, together with the setting-up of a coordinating mechanism to sequence portions of the genome of major biological interest.

Area 4 - Research on biomedical ethics
This area involves the study of problems relating to the research carried out in areas 1 to 3 of the Programme, and the possible applications of the research results.

Work deals with evaluation of questions of biomedical ethics linked with the present research Programme on biomedicine and health, and evaluation of the social impact of the Programme and the risks (including the technological risks) which might be associated with it.

Funding and Timescale

The total budget available for the BIOMED I Programme is 151 MECU divided between the 4 research areas as follows:

Area 1: 21%
Area 2: 54%
Area 3: 21%
Area 4: 4%

The first call for declarations of intent to participate in the Programme (areas 1,2 and 4 only) was announced during October 1991 and had a deadline of 31 January 1992. Following the submission of full proposals and evaluation by peer review during the summer, 114 projects were awarded funding.

The second and final call for full proposals was published in two parts:

(i) Area 3 Human Genome Analysis

The only call for proposals in this area was published during December 1992 and had a deadline of 29 January 1993. The Human Genome Analysis Area is the only area of BIOMED I to operate shared-cost contracts.

(ii) Areas 1,2 and 4

The second and final call for proposal in these areas was published during December 1992 and had a deadline of 26 February 1993.

Following evaluation of the proposals received under calls (i) and (ii) above, successful projects started around the end of the year.

There is an open call for fellowships: the selection committee meets three times a year, in March, June and November, with deadlines for submission of 15 January, 15 April and 15 August respectively.

Forms of Support

Support in areas 1,2 and 4 are by concerted action only; approved use of such funds include:

- the organisation of meetings of all sizes
- scientific and administrative support
- short-term international exchanges of personnel
- preparation and distribution of materials and reference products
- centralised data handling, storage and statistical analysis
- dissemination of information and results.

Shared cost contracts are available under Area 3.

Accompanying measures include seminars, workshops, conferences, studies and training fellowships.

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Future Plans

No further BIOMED Calls for proposals are expected. There is still however an open call for applications for training fellowships.

It is anticipated that biomedical and health research will continue to be supported under the fourth Framework Programme.

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The Third Framework Programme

Life Sciences for Developing Countries (STD 3)

General

STD 3 forms part of the third Framework Programme for Research and Technological Development. It is not linked to a specific Community cooperation policy (Africa, Caribbean and Pacific (ACP), Mediterranean countries, Asia and Latin America (ALA)), but seeks to stimulate simultaneous study in various parts of the world of specific scientific issues which can contribute to progress in all developing countries. The main objective of STD 1 (1982-1986) was to support Europe's strong tropical research potential. STD 2 (1987-1991) sought in addition to build the R&D capacities of developing countries. The current programme (1991-1994) has sought more specifically to make R&D relevant to the needs of developing countries through increased collaboration in the fields of tropical agriculture, medicine, health and nutrition between European scientists and scientists from developing countries. Its general objectives are:

- significant progress on themes associated with development needs, including environmental protection and the rational management of natural resources to help improve living standards and health in developing countries particularly in the poorest developing countries;
- further strengthening of research capacity in both developing countries and the Community Member States in areas defined as having priority for Third World development (agriculture, health, nutrition and the environment in tropical and subtropical areas), by means of joint research projects;
- improvement of coordination on tropical natural resources research within the European Community and the development of cooperation between developing countries, and consolidation, strengthening and extension of the links between Community and developing country partners, created in the first two programmes;
- making use of research personnel, skills and techniques developed in other Community S&T programmes, and offering them the opportunity of extending their field of investigation to the tropics and diversifying their methodological approach;
- acquisition of added value by the various existing national initiatives in this field, owing to the programme's Community dimension.

Technical Coverage

In order to ensure maximum efficiency, the STD programme has focused on major development problems and, since 1982, has covered two main areas:

- Tropical and sub-tropical agriculture.
- Medicine, health care and nutrition in tropical and sub-tropical regions.

Joint Research

From the outset, STD approved only research projects which involved at least two teams, one belonging to the Community and the other from a developing country. Under the third Framework Programme (1991-1994), projects have been obliged to link the potential of at least two Community teams and at least one from a developing country. Scientists in the developing countries have direct access to the STD programme funds from the Community budget, and can thus define their research priorities and involve partners of their choice, who have appropriate knowledge and expertise.

Funding and Timescale

126 million ecu of funding has been available during the period 1991-1994. For STD 3 there were three calls for proposals in 1991, 1992 and 1993 respectively.

Future Plans

There are not expected to be any further calls for proposals under the third Framework Programme.

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CONTINUED

EC R&D21b
FEBRUARY 1994

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• post harvest/processing		
• interdisciplinary areas		
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• plant genetics/breeding		**Fax:** 32-2-296-62-52
• mechanisation		
• veterinary problems	T Viegas	**Tel:** 32-2-295-86-36
• livestock		**Fax:** 32-2-296-62-52
• fisheries/aquaculture		
• forestry	K Beese	**Tel:** 32-2-295-44-84
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• farming systems	M Catizzone	**Tel:** 32-2-295-56-81
• environmental aspects, soils		**Fax:** 32-2-296-62-52
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• interdisciplinary areas		
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• training		

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The Third Framework Programme

Energy Programmes

Introduction

In the third Framework Programme (1990-94) the main aim of the energy programmes was to develop sound, affordable, environmentally safe energy technologies designed to improve the Community's energy balance.

The energy programmes involve two main fields of research: nuclear and non-nuclear.

Nuclear Programmes

The nuclear programmes under the third EC R&D Framework Programme here in the areas of thermonuclear fusion and nuclear fission safety.

The nuclear fission programme is a composite programme with a reactor safety element overseen by the Department of Trade and Industry, and a radiological protection element for which the Department of Health is responsible. The aim of the reactor safety research has been to consider how the safety of future reactor types can be assured, and to improve public confidence in probabilistic safety assessments. Studies have considered intrinsically safe reactor types, containment of radioactivity under severe accident conditions, integrity of containment systems, and management of human behaviour. Much of this work has been performed by the Community's Joint Research Centre.

The Community Fusion Programme has sought as its long-term objective the creation of safe, environmentally sound prototype reactors. The main effect of the programme is the Joint European Torus (Jet) project at Culham in in Oxfordshire, which is due to operate until 1996. JET has been reconfigured to enable experiments to be tried using "diverters" on exhaust systems designed to reduce the level of impurities in the plasma. It was due to recommence operation in early 1994. Further modifications are planned in early 1995. The European Community is also a partner in the International Thermonuclear Experimental Reactor (ITER) project to develop a prototype next step fusion device in the next century. The other partners are Japan, Russia and the USA.
The TELEMAN programme has focused on decommissioning of nuclear installations and on remote handling techniques.

Non Nuclear Programmes - Joule II and Thermie

The aim of the JOULE programme has been to develop novel energy technologies based on renewable energies or on fossil fuels, to develop models for energy and environment and to develop technologies for the rational use of energy. (The THERMIE programme is outside the Third Framework Programme, but expected to be a part of the fourth framework.) The emphasis of the THERMIE programme has been on providing support for high risk demonstration projects concerned with the application of these same new technologies.

Research in these fields has been open to suitable industrial and academic organisations.

Fundings

Under the Third Framework Programme the Energy Programme has had funding to its three different areas as follows:

- Non nuclear energies ECU 267 million
- Nuclear fission safety ECU 228 million
- Controlled nuclear fusion ECU 568 million

Future Plans

There will be no more calls under the third Framework Programme.

Non Nuclear

The fourth Framework Programme will include a non nuclear element covering the same broad technical fields as JOULE II in the third Framework Programme, although probably with more emphasis on renewables. Activities under the THERMIE programme (not part of the third Framework Programme) for the promotion of energy technologies (1990 -94) which supports demonstration projects in rational use of energy renewables, solid fuels and hydrocarbons, will be incorporated into the fourth Framework Programme.

Nuclear

It is anticipated that there will be programmes covering nuclear safety and controlled thermonuclear fusion under the fourth Framework Programme.

Further details can be obtained from:

Non-Nuclear Programmes

UK

Mr David Irving
Energy Policy and Analysis Unit 1C
Department of Trade and Industry

Tel: 071 238 3318
Fax: 071 828 7969

Commission

Mr Jean -Marie Bemtgen
Tel: 010 322 295 2071
Fax: 010 322 296 3024

Contact for Nuclear Programmes

1. Nuclear Fission Safety

a) Radiation Protection
Dr Hilary Walker
Dept/Health
Room 917a
Hannibal Hse
Elephant & Castle
London SE1 6TE

Tel: 071-972-2157

b) Reactor Safety
Mr John Verney
Health & Safety Exec.
Broad Lane
Sheffield S3 7HQ

Tel: 0742 768141 ext. 3404

CONTINUED

Commission

Mr J L Lamy
DGXII
Tel: 010 322 296 1111

2. Controlled Thermonuclear Fusion

Mr B Freeman
Dept of Trade and Industry
Rm 4.2.8
1 Palace St
London SW1E 5HE

Tel: 071 238 3771

Commission

Mr P Kind
DG XII (as Above)

3. Decommissioning

Mr Peter Hubbard
Dept of Trade and Industry
Rm 4.2.14
1 Palace St
London SW1E 5HE

Tel: 071-238-3654

Commission

Mr R Simon
DG XII
(as above)

4. Teleman

Electricity and Nuclear Fuels
Mr T Hayward
Dept of Trade and Industry
Rm 4.2.7
1 Palace St
London SW1E 5HE

Tel: 071-238-3798

Commission

Mr J L Lamy
DG XII (As above)

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The Third Framework Programme

Human Capital and Mobility

Introduction

The Human Capital and Mobility programme (1991-94) aims to extend and develop the "SCIENCE", "SPES" and Large Facilities programmes implemented under Framework Programme 2. Its central objective is to help increase the quantity and quality of human resources required for research and technological development by the EC Member States in the coming years.

This programme is at the basic end of the R&D spectrum and contracts are usually issued to universities, research institutes, national laboratories and occasionally, private sector laboratories.

Technical Coverage

The programme covers all the exact and natural sciences, including mathematics and engineering sciences, and the human and social sciences. Action is focused on four activities:

Activity 1: The development of a Community system of research training grants, intended primarily for young post-doctoral fellows. There are two types of grant, generally lasting for up to two years: individual fellowships given on the basis of joint institute-researcher proposals, and those allocated via pre-selected host institutions to groups of fellows. The programme allows for up to 15% of funds to go to host institutions and to the Commission to pay for associated and administration costs.

Activity 2: The creation and development of scientific and technical cooperation networks. As a general rule proposals should consist of 5 or more centres in at least 3 Community countries, although twinnings or networks of fewer than 5 centres in different Member States may exceptionally be supported provided they assist in the creation of a genuinely European scientific and technical Community. Grants normally cover 100% of the marginal costs of each project (60% for the subsistence and mobility costs of researchers themselves; 40% for certain expenses related to research and administration).

Activity 3: Provision of access for researchers to large-scale scientific and technical installations. This activity is aimed particularly at enhancing access for young post-doctoral researchers from other Member States. Of the total amount granted, 40% covers expenses related to the researchers themselves (subsistence, mobility, publication of results). The remaining 60% is related to the use of equipment, its adaptation or improvement, as well as management costs.

Activity 4: The launching of a Community system of R&D Euroconferences. Each Euroconference generally comprises a series of several high-level meetings where young European researchers can discuss with specialists the latest work and ideas in advanced and innovative scientific or technical areas. EC grants cover expenses related to the participation of young researchers attending the conferences (registration, travel and subsistence).

Funding and Timescale

The total budget is 587 million ecu.

After February 1994, this programme is closed with the exception of the nomination of individuals to fill fellowships already awarded to host institutes, which closes on 2 September 1994. It is however anticipated that some very similar schemes will be supported under the fourth Framework Programme

Future Plans

It is anticipated that this area will continue to be supported under the fourth Framework Programme.

Contacts

UK

Office of Science and Technology telephone information line:
071-925 6422

Mr J D Walsh
Science and Engineering Research Council
Polaris House
North Star Avenue
SWINDON
SN2 1ET

Tel: (0793) 411269
Fax: (0793) 411152

Commission

Dr D de Nettancourt
DG XII
Commission of the European Communities
Rue de la Loi 200
B-1049 BRUSSELS
Belgium

Tel: 010-322 295 4044
Fax: 010-322 296 3307

Information packs

Information packs, which contain application forms and explain how to apply, can be obtained from the Commission by telephoning or faxing the following numbers:

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VALUE:

Centralised Action for the Dissemination and Exploitation of Knowledge Resulting from Community R&D Programmes

Introduction

VALUE stands for Valorisation and Utilisation for Europe. This programme is concerned with the dissemination and exploitation of the results of Community scientific and technological research, obtained under programmes such as ESPRIT, RACE, BRITE-EURAM and JOULE. It provides a range of services to contractors involved in Community R&D projects, to help them protect, exploit and disseminate the results of their work. It also provides information and advice on the whole range of Community R&D programmes and encourages industrial and research organisations to participate in these programmes.

The VALUE II programme forms part of the third Framework Programme. It follows on from the VALUE programme, in the second Framework Programme, which is now coming to an end.

Technical Coverage

The VALUE II Programme has three elements: the interface between research and industry, the interface between research and the scientific community and the interface between research and society.

(I) INTERFACE BETWEEN RESEARCH AND INDUSTRY

This is the largest of the three elements and includes the following five activities:

(a) Relay Centres

A network of Relay Centres has been set up throughout the EC, to promote the Community's R&D programmes, to help organisations participate in these programmes and to ensure that the results arising from projects are disseminated and exploited. The Centres were set up in January 1993. There are four Relay Centres in the UK, each serving primarily one region of the UK:

- Welsh Development Agency serving Wales
- LEDU (Local Enterprise Development Unit) in collaboration with IRTU (Industrial Research & Technology Unit), serving Northern Ireland
- EuroInfo Centre Ltd in Glasgow, in collaboration with RTC North Ltd, Technology Transfer Centre and Business Info Source, serving Scotland and Northern England, including Teeside, Durham, Tyne & Wear, Northumberland and Cumbria
- The Technology Broker serving Southern and Central England

(b) CORDIS and Publications Dissemination Service

These dissemination activities aim to promote access to and exploitation of non-confidential information generated from EC R&D projects. Information is disseminated via books, reports, articles, conference proceedings and via CORDIS, the Community's R&D Information Service, based on electronically accessible databases.

(c) Utilisation of Results

This activity provides finance for projects which aim to exploit results from EC R&D programmes. Exploitation projects can include getting advice on intellectual property issues, assessing exploitation potential, carrying out market studies, searching for industrial/financial partners, carrying out feasibility studies, tests and experimental developments, and getting assistance in identifying licensees and negotiating licences.

(d) Protection of Results

This activity aims to protect the intellectual property belonging to the Community (mainly the output of the Joint Research Centre) and to provide some aid and advice to organisations which have been involved in EC R&D projects but which do not have access to patenting expertise.

(e) Promotion of Results

This activity promotes the results of the EC's R&D programmes, by supporting organisations which are disseminating information on EC R&D, and by organising seminars and conferences and participating in technology fairs.

(II) INTERFACE BETWEEN RESEARCH AND THE SCIENTIFIC COMMUNITY

This element aims to study the research environment and its impact. It has four themes: analysing and studying the Community R&D environment, improving communication of research, understanding the effectiveness and efficiency of R&D using a macro-economic approach, and studying the management of R&D.

(III) INTERFACE BETWEEN RESEARCH AND SOCIETY

This element aims to measure and analyse the impact on society of the scientific and technical knowledge resulting from the Community's R&D activities. It comprises three parts: evaluation of social impact, communication with the public and analysis of public demand and new requirements.

Participation

The services of the Relay Centres and the information held in the CORDIS databases and the published documents are available to everyone.

Assistance with utilisation, protection and promotion of results is available only to contractors who are or who have been participants in EC R&D projects and to their licensees or exploitation partners, including those of the Community Joint Research Centre. Participants can be industrial companies (in particular SMEs), universities, and public or private research centres in any of the member countries.

In addition, the Commission makes use of contractors to assist it in various activities, for instance designing and producing promotional literature and publications on Community R&D activities, carrying out surveys and studies in the European R&D community, and organising events and workshops on dissemination and exploitation themes.

A proposal usually starts informally with a simple letter or phone call to VALUE officials in the European Commission. At this, and at the later stages, all matters discussed are treated as confidential. After further discussions, these ideas may evolve into proposals for action which are then formally evaluated and selected by the Commission.

Action follows in the form of study and services contracts, which are carried out on behalf of the Commission, and shared cost contracts. In shared cost contracts, the Commission's contribution will cover up to 50% of total costs or 100% of additional marginal costs.

CONTINUED

Management of the Programme

Management of the programme is the responsibility of the European Commission and a Management Committee composed of representatives from each Member State.

Status Report

The Programme was formally adopted by the Council of Ministers in April 1992. Since then, there have been four calls for proposal.

Call for tenders for the continuous operation and further development of CORDIS and the provision of related services in connection with the dissemination of information on community R&D activities (closing date 4 September 1992);

Call for tender with a view to selecting experts and consultants to form a technical unit for the setting up of the Relay Centre network (closing date of 8 October 1992);

Call for tender for the selection of organisations or individuals to undertake work relating to the interface between research/scientific community and research/society (closing date of 29 October 1993);

Call for proposal aimed at the exploitation of R&D results from EC R&D programmes (closing date 15 December 1993).

Funding and Timescale

The programme was adopted in April 1992 and runs until the end of 1994. The programme had a total budget of 66 MECU, divided into 57.8 MECU for the Research-Industry interface, 4.7 MECU for the Research - Scientific Community interface and 3.5 MECU for the Research - Society Interface.

Future Plans

VALUE II comes to a close in December 1994 and is likely to be superseded by an equivalent programme within the Fourth Framework Programme. This is being negotiated presently between the Member States, the European Parliament and the European Commission.

Contacts

UK

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Commission

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Tel: 010-352 4301 33610
Fax: 010-352 4301 34129

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UK Relay Centre Enquiry Lines

Relay Centre for Wales

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Welsh Development Agency
QED Centre
Main Avenue
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CF37 5YR
Tel: (0443) 841345
Fax: (0443) 841393

Relay Centre for Northern Ireland

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Belfast
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Fax: (0232) 691432

Robert Bunn
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Industrial Research and Technology Unit
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Fax: (0232) 768857

Relay Centre for Southern and Central England

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Fax: (0954) 260291

Relay Centre for Scotland and Northern England

Coordinating Partner:
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EuroInfo Centre Ltd
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Tel: 041-211 0999
Fax: 041-221 6539

Highlands and Islands of Scotland

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Bridge House
20 Bridge Street
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IV1 1QR
Tel: (0463) 715 400
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Fax: 041-339 8787

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Tel: 091-549 8299
Fax: 091-548 9313

The Community Research and Development Information Service (CORDIS)

The objective of the CORDIS information service is to disseminate public information on the Framework programme and all European Community RTD Activities and their results. It aims to enhance awareness of these activities, assist interactions and co-operation among individual programmes and their participants, and help promote co-operation with similar RTD activities in Member States.

ONLINE SERVICE

At present the CORDIS databases are available online in English on the ECHO Host in Luxembourg. From the UK they can be accessed in a number of ways:

- Using the national psdn network (the most popular way to connect from the UK)
- Direct dialling via the international telephone network
- Via the academic network JANET

The databases can be searched via a menu system or with an interrogation language, the Common Command Language (CCL). A full set of user manuals is provided to all registered users and this is complemented by a Help Desk service available during office hours via ECHO's free-phone number (see below).

At present the online service is available free of charge to individuals or organisations based in EC or EFTA countries, but users must register in order to obtain a personal password. To register as a CORDIS user, and for any other enquiries, contact the CORDIS Help Desk at the address given below.

CD-ROM

During 1993 a CD-ROM was launched, containing complete CORDIS data. The CD-ROM is designed as an alternative to the online service for those who either have difficulties with online access or prefer to consult the database at leisure using a PC.

WINDOWS INTERFACE

A Windows Interface to the online system is also under development to provide a more user-friendly environment. It is expected to be launched during 1994.

CORDIS CONTENT

The CORDIS databases currently available (at time of publication) are:

RTD-Programmes:

This database is central to the CORDIS Service as it gives details of the Programmes through which the Commission pursues and finances Community policy on Research and Technological Development. It provides a starting point to which most of the information in the other databases can be related.

Detailed information of programmes includes objectives, implementation details, funding and timetables.

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RTD-Projects

The projects database contains more detailed information of activities within Community RTD Programmes, such as projects and studies. Information includes general details of projects, their timescales and participating organisations.

The database can be used to find out the extent of Community activities in specific RTD areas, or to find out the involvement of companies and institutions in Community research.

RTD-Publications (EABS)

Bibliographic details of over 50,000 publications, documents and reports arising from the above projects. In addition, the RTD-Publications database contains references to scientific and technical documents published by the Commission but which are not necessarily related to an RTD programme.

Many of the publication can be ordered through the online ordering facility.

RTD-Comdocuments

Information on Commission communications to the Council and Parliament on RTD activities. This is a valuable source of advance information on proposed programmes.

RTD-Acronyms

Explanation of the multitude of acronyms and abbreviations arising from Community RTD activities. These represent programmes, projects, organisations, databases, installations and other items, but exclude technical abbreviations of the type that may be found in textbooks or technical dictionaries.

RTD-News

Launched in December 1991 to provide latest news on all aspects of Community RTD activities. The news coverage includes calls for tenders, calls for proposals, events, publications, Commission proposals, activities in preparation, Community legislation and policies affecting RTD matters, and the progress and results of RTD programmes. The database is updated daily and includes an option which allows the user to browse through the most recent items.

RTD-Results

Information on results and prototypes arising from Community and other RTD research. The information comes from both public and private sector organisations, whether the research is funded nationally, internationally or independently. The database supports the Commission's aim to exploit the results of research by facilitating their commercialisation.

RTD-Partners:

Launched in January 1992 as a partner-search database containing profiles of organisations seeking partners for Community or other RTD programmes and projects. Additional information includes the type of research proposed and the type of partner sought. The database is open to contributions: organisations seeking partners for Community or other RTD research can use the CORDIS RTD-Partners database to publish details of their proposed research and the type of partner sought.

Further information on data contribution can be obtained from the CORDIS Help Desk (see below).

The following CORDIS database is planned:

RTD-Infopoints: Organisations in Member States providing assistance, nationally or regionally, in relation to Community RTD activities.

Information CORDIS

For all further information contact the CORDIS Help Desk:

UK Freephone 0800 899256
Direct phone: 010 352 34981 240
Fax: 010 352 34981 248
E-Mailx400:
C=DE;
ADMD=DBP;
PRMD=GEONET;
S=CORDIS-HELPDESK
Postal address:
ECHO/CORDIS Customer Service,
B.P.2373
L-1023 Luxembourg

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SPRINT

Strategic Programme for Innovation and Technology Transfer

Introduction

SPRINT is an EC programme administered by DGXIII to promote innovation and technology transfer. The programme's objective is to improve the competitiveness of industry, particularly SMEs, within the Community by ensuring that technology and innovation aids can be shared across national boundaries. It is primarily aimed at stimulating intermediaries (international licensing consultants, RTOs, technical institutes, for example) to co-operate in transnational networks which facilitate licensing deals between small and Medium-sized Enterprises or carry out joint projects to disseminate modern technology more widely. SPRINT is not part of the EC R&D Framework programme.

Technical Coverage

There are three main lines of action within the new programme.

1. Strengthening the European infrastructure for innovation services by consolidating or forming community networks of agents for technology transfer and innovation support .

2. Supporting "specific projects" which demonstrate by practical example the intra-community transfer of innovation. In particular such projects are concerned with transferring new technologies already applied in one sector or region of the Community to another sector or region where such technologies are not used.

3. Improving the environment for innovation through a better knowledge of its workings and increased "concentration", ie collaboration and exchange of experience in areas such as the use of research results, design, patents and innovation between the Member States and the Commission.

Funding and Timescale

SPRINT was launched in 1983 as a three year experimental programme and further extended in 1986 for a further two years at a cost of 8.6 MECU. In March 1989 the Council of Ministers approved the third five year main phase Programme, with a 90 MECU budget. The Programme has been extended until the end of 1994, with an additional budget of 19 MECU.

Participation

SPRINT is open to all organisations, both public and private, whose activities include helping business - particularly SMEs - to exchange technology and to innovate, eg regional or local development agencies, innovation centres, technology transfer or licensing consultants, Research and Technology organisations and Chambers of Commerce. Proposals selected by the Commission can receive financial support of 50% of eligible costs.

Interested parties can only apply for support following a Commission call for proposals published in the European Journal of the European Community. There is usually a three month period following publication of a call for return of proposals to the Commission.

Further Information

If you would like further information on the programme or your name to be added to the DTI SPRINT mailing list, please contact Miss Yuk Chung.

Future Plans

From 1994 SPRINT activities will be continued within the fourth Framework Programme.

Contacts

UK

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Commission

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European Co-operation in the Field of Scientific and Technical Research (COST)

Introduction

COST provides a mechanism for European scientific and technological collaboration which complements the European Community's research and development programmes. It was established by a European Ministerial Conference in 1971. The membership comprises the EC Member States, Austria, Finland, Norway, Sweden, Switzerland, Turkey, Slovenia, Croatia, Iceland, Hungary, Poland, the Czech Republic and Slovakia.

COST operates through a series of co-operative projects which enable a variable number of participants to undertake research in areas of common interest and to exchange the results amongst themselves.

There is no statute establishing COST, enabling it to work within flexible, pragmatic operating rules agreed by the Member States. For each individual COST project the form of co-operation is therefore defined in simple, purpose built agreements.

Technical Coverage

COST co-operation covers the following areas:

1. INFORMATICS
2. TELECOMMUNICATIONS
3. TRANSPORT
4. OCEANOGRAPHY
5. METALLURGY AND MATERIALS SCIENCE
6. ENVIRONMENT
7. METEOROLOGY
8. AGRICULTURE AND BIOTECHNOLOGY
9. FOOD TECHNOLOGY

A. SOCIO-TECHNOLOGIES
B. HEALTH AND MEDICAL RESEARCH
C. CIVIL ENGINEERING
D. CHEMISTRY
E. FORESTRY AND FORESTRY PRODUCTS
F. FLUID DYNAMICS

The COST mechanism has proved suitable for several types of problems including those of an intrinsically international nature, eg oceanography and environment; problems which are common to many COST Member States and which can benefit from joint actions eg data processing, materials, agriculture and food technology; and problems needing international harmonisation of standards, eg telecommunications and transportation, COST has established groups to examine the possibility of COST activity in a number of fields, including social sciences and chemistry.

Funding and Timescale

COST activities operate without any central funding towards the research expenditure. Additional expenditure is often minimal as research relating to a particular project is generally already underway. In most cases the European Commission provides a secretariat. Non-EC COST states taking part in those projects which have been incorporated into Community programmes contribute towards co-ordination costs. The European Commission pays the co-ordination costs of EC countries in such projects. Participants are responsible for all costs in COST projects outside Community programmes once they are underway.

COST is an on-going collaborative mechanism with no set end date. The extent and duration of projects is recommended in the relevant Memorandum of Understanding (see Participation).

Participation

Any COST Member State may propose a new research topic. If any other COST Member States are interested in collaboration this may lead them to set up an agreement between themselves known as a Memorandum of Understanding. This has no binding effect in international law and is merely a declaration of intent indicating a willingness of the signatory Member States to participate in the COST activity. Countries normally choose to participate in a particular project if they are already involved at national level in research in the field under consideration, or intend to initiate a national project.

Because of the nature of COST research activities, participants have been primarily administrations, research institutes and research centres belonging to the public sector, but an increasing number of projects involve participants from industry. Potential participants would normally be sought during the formative stage of a COST proposal to establish the level of interest prior to signing a Memorandum of Understanding and Implementation. A project Management Committee is then set up to implement the new COST activity.

Organisations from non-COST countries can participate in COST projects with the approval of the appropriate Management Committee and the Senior Officials Committee (see Management of the Programme).

Management of the Programme

Decisions on whether proposed COST projects should be undertaken and on participation are taken by the Committee of COST Senior Officials. This committee, which meets four times a year, is composed of representatives of the 25 COST Member States and the European Commission.

Status Report

The UK is a signatory to most of the projects of industrial interest on the COST project list overleaf. Information on specific projects can be obtained by contacting the individual concerned. Additionally there are other projects in which the UK is involved but come under the remit of other Government Departments. Details of these can be obtained from the COST Secretariat at the Cabinet Office.

Contacts

Further general information about COST can be obtained from the Cost Secretariat:

Edmund Bethall
COST Secretariat
Cabinet Office
Albany House
84-86 Petty France
LONDON SWIH 9ST
071 271 2113

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List of Current and Possible Future COST Projects of Interest to DTI

Project Subject Contact DTI

INFORMATICS

D Hutchinson 071 215 1255

14 Co-operation Technology

TELECOMMUNICATIONS

A Thomas 071-215-1742

206 Coding and transmission of high definition TV signals
211 (ter) Redundancy reduction techniques for coding of video signals in multimedia services
212 Human factors in information services
217 Optical measurement techniques for advanced optical fibre devices systems
219 Future telecommunications and tele-informatic facilities for disabled people
220 Communication protocols and user interfaces for keyboard and display equipment intended for use by disabled people
223 Active array antennae for future satellite and terrestrial communications
224 Methods for planning and evaluation of synchronous and asynchronous multiservice networks
225 Secure Communication
226 Integrated space/terrestrial networks
227 Integrated space/terrestrial mobile networks
228 Simulation for Satellite/ [proposed] Terrestrial Networks
229 Application of digital signal processing to communications
230 Stereoscopic TV - technology and signal processing
231 Evolution of land mobile radio communications including personal communications
232 Speech recognition over the telephone
233 Prosodics of synthetic speech
234 Expanded single mode fibre communications
237 Multimedia telecommunications services
238 Prediction and retrospective [proposed] ionospheric modelling over Europe (PRIME)
239 Ultra high capacity optical [proposed]
240 Techniques for modelling and measuring advanced photonic telecommunications components

METALLURGY AND MATERIALS SCIENCE

B Kerrison 071-215-1557

501 Advanced materials for power engineering
503 Power metallurgy
504 Advanced casting & solidification technology
506 Generation and evaluation of property data for engineering design with light alloys
507 Thermodynamic methodology & database for light alloys
509 Corrosion and protection of metals in contact with concrete
510 Advanced materials for temperatures above 1500C - Development of testing materials
511 Interaction of microbial systems with industrial materials

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EUREKA

A European Collaborative Initiative that Complements the EC R&D Programme

What is EUREKA?

EUREKA is a European initiative aimed at facilitating industry led, market driven, collaborative projects in all sectors of technology with the objective of introducing new products, processes and services with world market relevance.

EUREKA is complementary to the EC R&D programmes in that it is generally more concerned with the commercial exploitation of research. It is concerned with strengthening Europe's technological base, removing barriers to commercial success in the European market, and improving competitiveness in world markets.

EUREKA members are the 12 countries of the EC and Hungary, the 6 countries of EFTA, Turkey and Russia. The European Commission participates in EUREKA as an equal member.

EUREKA projects can be in any technological area provided that the simple EUREKA criteria are met. These key criteria are that the project must comprise at least two organisations from at least two EUREKA countries, and that the project must involve technical innovation. Current projects mostly fall into one of the following nine categories; (these categories should not however be seen as programmes as there are no priority areas where Governments are seeking project proposals):

- Communication
- Energy
- Environment
- Information Technology
- Lasers
- Medical/biotechnology
- New materials
- Robotics and Production Automation
- Transport

Since its launch in 1985 EUREKA has embraced 13.5 BECU (£11.36) of agreed projects; there are now 816 EUREKA projects. Currently 680 UK organisations are involved in 221 EUREKA projects, and UK companies take the lead in 71 of these.

EUREKA Umbrellas

The National Project Co-ordinator network can help you find partners by bringing your project proposal to the attention of organisations in other member countries. The UK EUREKA Unit is situated in the Innovation Policy Division of DTI. In addition there are specialist technology umbrellas which promote loosely structured packages of R&D in given fields. These are:

FAMOS	FLEXIBLE AUTOMATION
EUROENVIRON	TERRESTRIAL ENVIRONMENT
EUROLASER	LASER TECHNOLOGY
EUROMAR	MARINE ENVIRONMENT
EUROCARE	PRESERVATION OF THE PHYSICAL HERITAGE
MAINE	MAINTENANCE OF CAPITAL EQUIPMENT
EUROVOLTAIC	SOLAR POWER
EUROAGRI	FOOD INDUSTRY
EUROSURF	SURFACE ENGINEERING
EUROKLEBEN	ADHESIVES
DIAGNOSTICS	DIAGNOSTICS

Projects are proposed and run by firms and research institutes; bureaucracy is kept to a minimum. UK firms are encouraged to take the lead in creating new EUREKA projects.

Funding For Project Participants

Participants in EUREKA can obtain funding from their own national governments. Government support must be shown to significantly influence the scope or scale of the project. In addition, projects should be innovative and technically realistic, and there should be reasonable prospects of eventual commercial exploration. Further, the resources devoted to the project (managerial and technical) should be sufficient to ensure effective completion of the project. DTI assistance may be available to any size of company to help with consortium building, but is only available to small and medium sized companies for project implementation.

Contact

For further information on EUREKA please contact the EUREKA Enquiry Point.
Tel: 071 215 1618.

Σ! EUREKA

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FUNDING STATUS OF EUROPEAN COMMUNITY RESEARCH AND DEVELOPMENT PROGRAMMES - JANUARY 1994

PROGRAMME	UK CONTACT *	TEL	FUNDS
ESPRIT	Julian Thompson	071 215 1378	All allocated
RACE	Patrick McDonald	071 215 1795	All allocated
TELEMATICS 1 (Public Administrations)	Dr Alun German	071 215 1226	All allocated
TELEMATICS 2 (Transport Services)	David Mason	071 215 1243	All allocated
TELEMATICS 3 (Healthcare)	Brian Jones	071 215 1224	All allocated
TELEMATICS 4 (Flexible & Distance Learning)	Keith Holder (DEm)	071 273 5406	All allocated
TELEMATICS 5 (Libraries Programme)	Mr P Bolt (Heritage)	071 210 3939	All Allocated
TELEMATICS 6 (Linguistics Research)	Dr Peter Lee	071 215 1390	Check with Contact
TELEMATICS 7 (Rural Areas)	Kimon Mitiadou	071 215 1809	All allocated
IMT (Industrial Materials)	Steve Ringer	071 215 1555	All allocated
MEASURE/TEST	Peter Payne	071 215 1406	Call for 29/4/94
ENVIRONMENT	Dr D J A Davies (DoE)	071 276 8365	All allocated
MAST (Marine Sciences)	John Beaumont	071 215 1428	All allocated
BIOTECH	Mr N Ashcroft (AFRC)	0793 413027	All allocated
AGRICULTURE	Mr D Woodward (MAFF)	071 238 5599	All allocated
BIOMED	Ms Ainslie Clarke (MRC)	071 636 5422	Fellowships only
ENERGY	Mr D Irving	071 238 3318	All allocated
HUMAN	Mr J D Walsh (SERC)	0793 411269	All allocated
STD (Third World Life Sciences)	Ms Janet Percy (ODA)	071 917 7000	All allocated
VALUE	Purnima Madhvi	071 215 1614	All allocated

* DTI unless stated otherwise

PROGRAMME
INFORMATION

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